

VOL. XXXIX NO. 44

TOPEKA, KANSAS, THURSDAY, OCTOBER 31, 1901.

ESTABLISHED IN 1863 \$1.00 A YEAR

Breeders' Directory.

DUROC-JERSEY SWINE.

D. TROTT ABILENE, KANS., famous Du-roc-Jerseys and Poland-Chinas

Registered Stock, DUROC-JERSEYS, contains breeders of the leading strains. N. B. SAWYER, - - Cherryvale, Kansas

M. H. ALBERTY, - - Cherokee, Kansa DUROC-JERSEYS.

100 head for this year's trade; all eligible to record

MAPLE AVENUE HERD

J. U. HOWE,
Wichita, Kans.
Farm 2 miles west of
city on Maple Avenue.

FAIRVIEW HERD DUROC-JERSEYS
Has 80 pigs of March, April, and May, 1901, farrow for
this season's trade at reasonable prices.

J. B. DAVIS,—Fairview, Kansas.

DUROC-JERSEY SWINE—REGISTERED

Write for prices on what you want; 100 to NEWTON BROTHERS, Whiting, Kans.

STANDARD HERD OF

Registered Duroc-Jerseys PETER BLOCHER, Richland, Shawnee Co., Kans. Herd headed by Big Joe 7368, and others. Write for prices on what you want. S. C. B. Leghorns.

MAPLE HILL HERD DUROC-JERSEY HOGS

I have 50 spring pigs for sale. Individuality and breeding second to none; good enough to head any herd and to compete in the show ring. HARRY M. SNEED, - Smithton, Mo.

100 Duroc-Jersey Pigs.

For Sale—100 March and April pigs from the Rock dale Herd of Registered Duroc-Jersey Swine. The get of 8 herd boars. Prices right. Address J. F. CHANDLER, Frankfort, Kansas.

POLAND-CHINA SWINE.

V. B. HOWEY, Box 103, Topeka, Kansas. Breeder and shipper of Poland-China hogs, Jerses cattle, S. L. Wyandotte chickens. Eggs in season.

MOUND VALLEY HERD OF POLAND-CHINAS Has some very fine spring pigs of either sex for sale at famine prices. Give us an order and we will surprise you as to prices and individuals. Most popular blood represented. Everything guaranteed as represented. W. P. WIMMER & SON, Mound Valley, Kans

POLAND-CHINAS. 90 GOOD spring pigs only a few fall gilts bred but they are CHOICE. Write for one. Don't delay DIETRICH & SPAULDING, Richmond, Kansas

T. A. Hubbard, ROME, KANS., Breeder of POLAND-CHINAS and LARGE



Two hundred head. All ages. Twenty-five boars and 45 sows ready for buyers.

SUNNYSIDE HERD OF

Pedigreed Poland-China Hogs We now have for sale some extra good young boars, and a lot of gilts 8 to 10 months old. All good. Gilts will be bred or sold open as desired. This is a choice lot of young stuff that will be priced cheap, quality considered.

M. I. SOMEDS. Alterna Konna

M. L. SOMERS, Altoona, Kans

VERDIGRIS VALLEY HERD OF POLAND-CHINAS.

For Sale: 12 head of the best early boars that I ever produced; large, heavy-boned, and smooth. Ten head of May, June, and July boars that are fancy; also one last fail's boar that is a show pig.

E. E. WAIT, Altoons, Kansas.

Successor to WAIT & EAST.

High-Class Poland-China Hogs Jno. D. Marshall, Walton, Harvey Co., Kans.

Breeds large-sized and growthy hogs with good bone and fine finish and style. For SALE—Thirty October and November gilts and 15 boars; also 100 spring pigs, sired by Miles Look Me Over 18879. Prices right. Inspection and correspondence invited.

POLAND-CHINA SWINE.

KANSAS HERD OF POLAND-CHINAS has some extra fine spring glits, some January glits, and sows 18 months, bred to Sen. IKnow, he by Perfect IKnow; and some nice fall boars by Sen. 1 Know, and U. S. Tec. Address F. P. MAGUIRE,

HAVEN, RENO COUNTY, KANSAS.

RIVERSIDE HERD OF POLAND-CHINA HOGS. 80 head spring farrow, both sexes, fancy bred, prices reasonable. Also Commodore Dewey 46187, the prize winner of southern Kans. Write, for prices on this noted show hog. M. O'Brien, (Riverside), Liberty, Kas

Kramer's Poland - Chinas.

FOR SALE: Forty March boars and gilts, sired by Little Mack 14992 (the sire of Knox All Wilkes). Will now sell this grand herd boar, a tried and satisfactory sire. Address

D. A. KRAMER, Washington, Kas

..FANCY.. POLAND-CHINAS

FOR SALE: 125 fall and spring boars and glits, sired by Dandy U. S. 17446, and Model Boy Jr. 2400. The sire of each of my herd boars cost \$1,000. Choice pigs offered at reasonable prices. Write at

M. ROLAND HUGHES, Independence, Mo.

THOROUGHBRED

I have for sale a few October boars and gilts, a bred sows, and 70 winter and spring pigs, good head and ears, large-boned. Come and see them

JOHN BOLLIN, Kickapoo, Leavenworth Co., Kans. (Express Office, Leavenworth.)

SHADY LANE STOCK FARM. HARRY E. LUNT, Proprietor, Burden, Cowley Co., Kans Registered Poland-Chinas

25 Boars and 25 Gilts of late winter farrow, sired by Searchlight 25513, and Look No Further. Dams of the Black U. S., Wilkes, Corwin, and Tecumseh strains. Prices low to early buyers.

Remember the three days' Combination Sale at Winfield, Kans: February 11, 1902, Poland-Chinas by Snyder Bros. and H. E. Lunt; February 12, 1902, Shorthorns by J. F. Stodder, and February 13, 1902, Shropshires by J. C. Robison and Snyder Bros.

R. S. COOK, Wichita, Kansas, BREEDER OF

POLAND-CHINA SWINE

The prize-winning herd of the Great West. Seven prizes at the World's Fair. The home of the greatest breeding and prize-winning boars in the West, such as Banner Boy 28441, Black Joe 28608, World Beater, and King Hadley. FOR SALE—An extra choice lot of richly-bred, well-marked pigs by these noted sires and out of thirty-five extra-large, richly-bred sows.

Inspection or correspondence invited.

DICKINSON COUNTY'S POLAND=CHINAS

...AND...

SHORTHORNS

SPECIAL OFFERING

Twenty choice growthy young sows, and 10 fancy young boars. Choice breeding and choice individuals. Most popular strains. A Also 8 head of bulls, ranging in age from 6 to 15 months, 4 of which are pure-bred. All good colors. Nicely bred and good individuals. If you want a bargain write me at once or come and see them.

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LIVE STOOK ARTIST.

H. L. RITCHIE, 504 N. Y. Life Bldg., Kansas City, Mo. Sketching, and photographing live stock a specialty. Write for particulars.

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Ridgeview Farm Herd of LARGE ENGLISH BERKSHIRES

Have for sale—spring pigs of quality, at reasonable figures. Write us before buying. MANWARING BROS., Lawrence, Kans

BERKSHIRES A Specialty

GEO. S. PRINE, Oskaloosa, Iowa.



For sale, 180 head of the best blood known, including Prine's famous Norae and oth-er popular strains. Founda-tion stock supplied to breeders.

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Stock For Sale.
Farm is two miles northwest of Reform School.

TWENTIETH CENTURY HERD OF UP-TO-DATE, PRIZE-WINNING CHESTER WHITES



We have 70 pigs, mostly sired by Balance All 11327, the champion boar of 1900 at lead-ing State Fairs and the Inter-national Live Stock Exposi-tion. Address DORSEY BROS., Perry, Ill.

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ENGLISH RED POLLED CATTLE—Pure-bred Young Stock For Sale. Your orders solicited. Address L. K. HASELTINE. DOROHESTER, GREEN Co., Mo. Mention this paper when writing.

MEADOW BROOK SHORTHORNS—Ten fine young bulls for sale—all red. Red Laird, out of Laird of Linwood, at head of herd.

F. C. KINGSLEY, Dover, Shawnee County, Kansas

E. S. COWEE, Eskridge, Kans., R. R. 2, Breeder of PURE-BRED HEREFORD CATTLE Kids' Duke 96637 at head of herd. Young bulls and heifers for sale.

Registered Herefords Of either sex, at private sale. I also have 140 % to % high-grades at private sale.

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00 acres. Pure-bred stock only. Herefords, Po--Chinas, Light Brahmas, and Belgian hares. Stock Il kinds for sale. Pedigreed hares, \$2. O. B. WHITAKER, Proprietor, Shady Bend, Kans.

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Shorthorn Cattle, and Poland - China Swine.

Farm is 2 miles south of Rock Island depot.

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CHAS. FOSTER & SON, Foster, Butler Co., Kans. Breeders of RED POLLED CATTLE. Herd headed by Powerful 4582. Pure-bred and grade for sale. Also prize-winning Light Brahmas.

Registered Herefords.

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Norwood Shorthorns. V. R. ELLIS, Gardner, Kans.

Sir Charming 4th at head of herd. Cruickshank-top crossses on best American families. Young stock for sale

Rock Hill Shorthorns and .. Saddle Horses..

Bulls in service, Sempstress Valentine 157069, and Mayor 12922). A fine string of young bulls and a few helfers for sale.

J. F. TRUE & SON, Proprietors.

Post-office, PERRY, KANS. Railroad station, Newman, Kans., on Union Pacific R. R., 12 miles east of To peka

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EXTRA FINE, LARGE, PURE-BRED M. B. Turkeys, Embden and Toulouse Geese, Pekin Ducks, White Guineas, and 6 kinds of fancy chickens for sale. Also Yorkshire Pigs, Cotswold Sheep, and Angora Goats Send stamp for circular. A. A. RIEFF. Box C.-289. Mankato, Minnesota.

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Aberdeen-Angus Cattle

The Oldest and Largest in the United States Splendid recently imported bulls at head of herd Registered animals on hand for sale at reasonable prices at all times. Inspect herd at Allendale, near lola and La Harpe, Allen Co., Kans., and address Thos. J. Anderson, Manager, there; or

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Also German Coach, Saddle, and trotting-bred horses. World's Fair prize Oldenburg Coach stallion Habbo, and the saddle stallion Rosewood, a 16-hand 1,100-pound son of Montrose in service. Visitors always welcome.

Address BLACKSHERE BROTHERS, Elmdale, Chase County, Kansas.

East Lynn Herefords.

Special Offering: Eleven cows and heifers, from 8 months to 8 years old. Cows bred to Java of East Lynn; all regular breeders and registered; also 10 registered bulls, from 8 to 20 months old. These bulls are large and bred right. If you want a bargain, write me or come and see them. WILL H. RHODES, Tampa, Marion Co., Kans.

..LOCH AERIE.. HEREFORDS.

Three females listed for the Kansas City Show and Sale. Look for them. Miss Stewart 4th 67418 and bull calf, Beauty 93242 and bull calf, and Prairie Flower 105602.

W. S. POWELL, Moline, Elk Co., Kans.

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RAVENSWOOD - SHORTHORNS

O. E. LEONARD, Bollair, Mo.

Males and females for sale. Inspection especially invited. Lavender Viscount 124755, the champion buil of the National Show at Kansas City, heads the herd. ED. PATTERSON, Manager.

Railroad and Telephone station, Bungeton, Mo.

D. P. NORTON'S Breeder of Pure Bred SHORTHORNS Dunlap, Morris Co., Kans Herd Bull, Imported British Lion 133692 Young stock for sale.

E. H. WHITE, 🔻 Estherville, lows, GALLOWAY CATTLE.



Herd Foundation Stock A Specialty. A few choice Females and 14 Bulls for sale. Inspection or Correspond-ence invited.

THE GEO. H. ADAMS HEREFORDS

AT LINWOOD, KANS.

YEARLING Bulls and Heifers for sale, sired by Orpheus 71100, and Ashton Boy 52058, and out of choice imported, and home-bred cows. Address all correspondence to GEORGE F. MORGAN,
General Manager, Linwood, Kansas.

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Herd headed by Acomb Duke 18th 142177. Herd com-posed of Young Marys, Galateas, and Sansparells. Young bulls for sale.

A. M. ASHCRAFT, Atchison, Kans. R. F. D. No. 3. Inquire at Ashcraft & Sage Livery Barn, Main Street

Silver Creek Shorthorns.

The Scotch bull, Gwendoline's Prince 180913, in service. Also the imported Scotch Missie bull, Aylesbury Duke. 100 head of the best Scotch, Bates, and American families. High class Duroc-Jersey swine for sale. J. F. STODDER, Burden, Cowley Co., Kans.

Remember the three days' Combination Sale at Winfield, Kans: February 11, 1902, Poland-Chinas by Snyder Rros. and H. E. Lunt; February 12, 1902, Short horns by J. F. Stodder, and February 13, 1902, Shropshires by J. C. Robison and Snyder Bros.

..SUNFLOWER HERD.

SCOTCH, AND SCOTCH-TOPPED

SHORTHORN CATTLE, POLAND-CHINA SWINE

Herd Bulls, Sir Knight 124403, and The Baron

Herd Boars, Black U. S. 2d 25582 S, and Mis-

souri's Best On Earth 19836 S. REPRESENTATIVE STOCK FOR SALE Address ANDREW PRINGLE, ESKRIDGE, KANSAS.

Wabaunsee County.

H. R. LITTLE,

HOPE, DICKINSON CO., KANS., Breeds Only the Best, Pure-Bred

SHORTHORN CATTLE.

Herd numbers 185, headed by ROYAL CROWN, 125698, a pure Cruickshank, assisted by Sharen Lavender 148002. FOR SALE JUST NOW—16 BULLS of serviceable age, and 12 Bull Calves, Farm is 1½ miles from town. Can ship on Mo. Pac., R. I., or Santa Fe. Foundation stock selected from three of the great herds of Ohio.

OLOVER SHORTHORNS

Herd Headed by the Cruickshank Bulls

Imp. Nonpareil Victor 132573

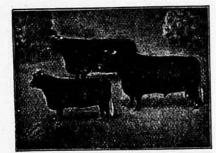
Sire of the champion calf and junior champion bull of 1900

... Grand Victor 115752...

Himself a show bull and aire of prize

FEMALES are Scotch, both imported and homebred, pure Bates, and balance 3 to 6 Scotch tops. STOCK FOR SALE.

GEO. BOTHWELL, Nettleton, Caldwell Co., Mo. On Burlington Railroad.



GLENDALE SHORTHORNS, OTTAWA, KANSAS.

Leading Scotch, and Scotch-topped American families compose the herd, headed by the Cruickshank bul Scotland's Charm 127284, by Imp. Lavender Lad, dan by Imp. Baron Cruickshank. Twenty bulls for sale C. F. WOLFE & SON, Proprietors.

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PERCHERON HORSES, and ABERDEEN-ANGUS CATTLE.

GARRETT HURST, Breeder, Zyba, Sumner County, Kansas. Young stock for sale of either sex. All registered.

HENRY AVERY & SON,

BREEDEBS OF

Pure Percherons.

Wakefield, Clay County, Kansas.

Pleasant Hill Jack Farm.

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25 Mammoth, Warrior, and Spanish Jacks Now For Sale. Quality and Breeding Unexcelled.

Inspection and Correspondence Invited.

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For Sale—25 Clydesdales, including 8 registered stallions of serviceable age, and 18 mares.
Inspection and correspondence invited.

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CHEVIOT SHEEP, AND POLLED DURHAM CATTLE. Some fine rams for sale. The Cheviots are rustlers nooth, clean face, allowing clear vision to approach g danger. Write for prices and circulars. A. E. Burleigh, Knox City, Knox Co., Mo.

ANOKA FARM RAMBOUILLET AND COTSWOLD SHEEP.



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25 Imported, and 75 American Rams and 150 Ewes for sale. Our show flock at the Pan-American and all State Fairs this year was a sweeping success. Write us your

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Lawrence, Kansas.

...Breeder of ...

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I have a few Yearling Bucks and some fine Kid ucks, sired by King Cromwell for sale. Satis-

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The best \$2.00. (and \$2.50 with bath) Hotel in America. W. J. KUPPER, Proprietor.

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At the newly furnished and decorated hotel. Steam heat and electric elevators. Formerly the Clifton House, but now the

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Corner of Monroe Street and Wabash Avenue. Located most central to the wholesale and retail stores, theaters and public buildings.
The prices range from 75 cents and upwards per day.
European plan. Visitors to the city are welcome.

SAMUEL GREGSTEN, Proprietor

Chicago, III., Thursday, November 7, 1901,

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Imported Scotch-Bred

Shorthorns

THE SHOW HERD.

VALIANT,

First prize aged bull at Illinois State Fair and at head of first-prize herd.

IMP. LORD BANFF,

First prize 2-year-old bull at the Illinois State Fair.

IMP. CICELY,

Bred by the late Queen Victoria; first prize cow Illinois State Fair and Royal English champion.

IMP. EMPRESS 12TH, First at the English Royal of 1900, and second to Cicely at Springfield last week.

IMP. MAY BLOSSOM,

Bred by the late Queen Victoria, and well up in the running at all the shows.

IMP. ASCOT MAYFLOWER, Daughter of the \$2 000 cow, Imp. May-flower 4th.

IMP. LADY WATERLOO B.

By Merry Murlin 159858.

LADY HAMILTON,

By Marquis of Zenda 157854. PINE GROVE MILDRED 3D,

By Marquis of Zenda.

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Duthie,

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and other eminent breeders.

> Selected for individual merit.

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Shorthorn (

Owned by W. P. HARNED, Vermont, Mo.



200 HEAD. NO BETTER BREEDING FEW BETTER CATTLE

Cruickshank's Booth Lancaster, and Double Marys represented, with preponderance of Cruickshanks. IMP. GOLDEN THISTLE, by Roan Gauntlet, dam by Champion of England.

THE IMPORTED COW is the dam of Godoy, my chief stock bull, he by Imp. Spartan Hero, he by Barmpton. Godoy is closer to the greatest Sittyton sires than any living bull except his full twin brother. For Ready Sale—25 Bulls, 12 to 18 months old, and 40 Yearling Helfers to sell at drouth prices. Railroad Station, Tipton; main line Missouri Pacific; Vermont, Mo., on branch Missouri Pacific.

CATTLE.



Imported and American Bred SCOTCH SHORTHORN CATTLE, AND

...REGISTERED PERCHERON HORSES

AND IMP. LORD COWSLIP.

The Property of

HANNA & CO., Howard, Kansas.

IMP. COLLYNIE 135022, Bulls in Service: IMP. MARINER 135024,

HERD is rich in the best Cruickshank blood and contains 10 females imported direct from Collynie
and Uppermill. For Sale—10 bulls—
herd headers—of choleest Scotch and
Cruickshank breeding. No females
for sale at present.

Registered Percherons Registered Percherons
(Brilliants) in Service.

DIRECT 18839 (by Bendago by Brilliant, dam Fenelo
by Fenelon by Brilliant.) Bendago's dam the famous
prize-winner Julia by Le Ferte
For Sale—Three 2-year-old stallions by Direct

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For Sale—A few Shorthorn heifers, and Percheron stallions; also a Special Bargain on 9 Registered Here-ford Bulls, 2 years old, and a few Full-blood Percheron

German Coach, Percheron, and Belgium Horses.

OLTMANNS BROS., Importers and Breeders, WATSEKA, ILLINOIS. Three Importations in 1901. 100 Stallions For Sale.

No other firm enjoys such buying facilities; the senior member being a resident of Germany is personally acquainted with the best breeders in France, Germany, and Belgium. We can save you money, Come and see us. We shall exhibit at the International Live Stock Exposition, Chicago, Dec. 1-7, 1901.

S. A. SPRIGGS, Westphalia, Kansas

Registered Mammoth, and Imported Spanish Jacks and Jennets; Also Registered Stallions.

All stock guaranteed just as represented. Correspondence solicited.



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Breeders of POLAND-CHINA SWINE; SHIRE, CLYDE, AND PERCHERON HORSES. AND POLLED DURHAM CATTLE.

For Sale at Special Prices—17 BOARS, and 25 GILTS, farrowed mainly in November and December. They are extra well bred and very thrifty.

8 Polled Durham Buils, of serviceable age. 17 Stallions over 2 years. 2 Mammoth Jacks.

Remember the three days' Combination Sale at Winfield, Kans: February 11, 1902, Poland-Chinas by Snyder Bros. and H. E. Lunt; February 12, 1902, Shorthorns by J. F. Stodder, and February 13, 1902, Shropshires by J. C. Robison and Snyder Bros.



America's Leading Horse Importers

At the Pav-American Exposition won a great victory for the Percheron breed and for themselves.

In competition with 30 prize-winners of all known draft breeds one of their Percherons won the GRAND SWEEPSTAKES.

In the stallion classes and in competition with the largest show ring of French Coachers and Percherons ever exhibited at one time on this continent their stallions won EVERY FIRST PRIZE given by the Pan-American Exposition.

McLaughlin Brothers,

COLUMBUS, OHIO.

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PERCHERONS.

J. W. & J. C. ROBISON, Importers and Breeders. TOWANDA, BUTLER CO., KANS.

LARGEST HERD IN THE STATE. IMPORTED, AND AMERICAN BRED STALLIONS AND MARES For Sale af all times.

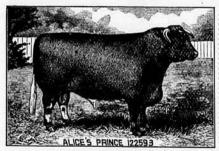
Prices reasonable.

Inspection invited. stallions for sale.

Seventeen young

Remember the three days' Combination Sale at Winfield, Kans: February 11, 1902, Poland-Chinas by Snyder Bros. and H. E. Lunt; February 12, 1902, Shorthorns by J. F. Stodder, and February 13, 1902, Shropshires by J. C. Robison and Snyder Bros.

LAWN HERD SHORTHORNS



HERD BULLS ARE: ALICE'S PRINCE 122593 bred by W. A. Harris; Victor Bashful 152797 bred by J. R. Crawford & Sons; VALIANT 151304 bred by C. C. Norton; ADMIRAL GODOY 133872 bred by Chas. E. Leonard.

FEMALES are the best Cruickshank families Topped from the leading importations and American herds. These added to the long established herd of the "Casey Mixture," of my own breeding, and distinguished for INDIVIDUAL MERIT, constitute a breeding herd to which we are pleased to invite the attention of the public. Inspection and correspondence solicited. Address all correspondence to manager.

E. M. Williams, G. M. CASEY, Owner, Shawnee Mound, Henry Co., Mo



Gudgell & Simpson, Independence, Mo.,

.. BREEDERS AND IMPORTERS OF ..

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One of the Oldest and Largest Herds in America.

ANXIETY 4TH Blood and Type Prevail

LAMPLIGHTER 51834. Both Sexes, in Large or Small Lots, Always For Sale



STEELE BROS., Belvoir, Douglas Co., Kans.,

HEREFORD CATTL

YOUNG STOCK FOR SALE. INSPECTION OR CORRESPONDENCE INVITED.

T. K. Tomson & Sons,

Elderlawn Herd of Shorthorns.

DOVER, SHAWNEE COUNTY, KANSAS. GALLANT KNIGHT 124468 in service. How would you like a cow in calf to, or a bull sired by, Gallant Knight 124468? His get won 14 prizes at the National Cattle Show held at Kansas City last October. 100 head in herd. Correspondence and inspection invited.

Sunny Slope Herefords

... 290 HEAD FOR SALE...

Consisting of 200 Bulls, from 8 months to 4 years old, and 30 yearling helfers. I will make very low prices on bulls, as I desire to sell all of them before May 1. Write me, or come at once, if you want a bargain.

C. A. STANNARD, Emporia, Kans



Pearl Shorthorns.

Herd Bulle BARON URY 2d 124970. LAFITTE 119915.

Inspection Invited-

C. W. TAYLOR, Pearl, Kans

FOR SALE.

1,000 HEAD OF GRADE HEREFORDS

600 Cows and Heifers, 300 Calves, 100 Yearling Steers, 25 Registered Hereford Bulls At Garden City, Kansas,

For particulars, address SCOTT & MARCH, Belton, Missouri.

alley Grove Shorthorns

THE SCOTCH BRED BULLS

LORD MAYOR 112727, and LAIRD OF LINWOOD 127149 HEAD OF THE HERD.

LORD MAYOR was by the Baron Victor bull, Baron Lavender 2d, out of Imp. Lady of the Meadow, and is one of the greatest breeding bulls of the age. Laird of Linwood was by Gallahahad out of 11th Linwood Golden Drop, Lord Mayor helfers bred to Laird of Linwood for sale. Also breed Shetland ponies. Inspection invited. Correspondence solicited. A few young bulls sired by Lord Mayor for sale.

Address T. P. BABST, Prop., Dover, Shawnee Co., Kans

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Chicago, New York, Kansas City, Omaha, Ft. Worth, San Francisco.

Single Blackleg Vaccine Powder Form. Double Blackleg Vaccine Blackleg Vaccinating Outfit

Single Blacklegine \ Vaccine ready for use. Double Blacklegine \ Each dose separate. Blacklegine Outfit (Needle with handle), 50c.



Disinfectant Feeding Compound Scour Cure (Alexander) Virus for Destroying Rats

ALL WELL-KNOWN, SUCCESSFUL REMEDIES. WRITE FOR PARTICULARS AND PROOFS OF SUCCESS. FREE SAMPLE OF DIP AND DISINFECTANT SENT UPON REQUEST. BEWARE OF DANGEROUS IMITATIONS OF OUR VACCINES.

WHEN WRITING ADVERTISERS MENTION KANSAS FARMER.

Agricultural Matters.

Plant-Breeding.

FROM THE FARMER, MINNEAPOLIS, MINN.

Wheat has the first place among all the cereals as food for man, for the reason that its gluten allows the yeast to expand the dough into a white, soit, and palatable sponge, but more than that of appearance it contains the right proportions of food elements best suited to man's needs. The more abundant and the cheaper this cereal can be grown the better for all classes producers and consumers.

When the Minnesota State Experiment Station was established in 1888 measures were promptly instituted to find the varieties of wheat best adapted to this State and the Northwest. The chief points in mind were to secure kinds of wheat, which while yielding the largest profits per acre for the farmer, would supply the flouring mills with wheat of a superior quality, and at the same time be the most nourishing and useful as a human food.

The station secured from various sources about 200 varieties or samples, of wheat, the best that could be found in not only Minnesota but also in other States and counties, most of the varieties being spring wheat. Up to the present time the station has experimented with over 600 varieties. Many of the collected wheats were discarded after a single trial in the crop garden. Exa single trial in the crop garden. Experiments were not limited to the fields and gardens of St. Anthony Park Station, but trials have been continuous in various parts of the State on different

soils. After ten years of experiments the original 200 varieties were so closely culled out that only 8 of the best yielding kinds were grown at the experi-ment farm, and now the number has been still farther reduced. In making experiments Prof. W. M. Hays, who has charge of the work, found it necessary to use numbers in designating the various wheats, and what is now known as Minnerota No. 163 has shown best gen-eral results in the increased yield per acre, as well as in subjecting the flour to what is known among milling experts as the "color test," the "gluten test," and the "baker's sponge test," all made under the direction of Prof. Harry Snyder. The results of these tests of the flour in connection with the data on yield, grade liability to lodge, etc., puts No. 163 in the lead, although there are several other varieties follow ing very closely. No. 163 was originated by a system of rigid breeding by selection begun in 1889. During the first two years only one seed was planted in a hill, that the best plants might be chosen. For the past six years it was grown in competition with Blue Stem and Fife, and the average of that period was 29.2 bushels for No. 163, against 25.2 bushels for Fife, and 24.4 bushels for Blue Stem, the latter being the varieties most commonly grown in Minnesota and the northwest. The yield as recorded was under conditions of soil and field management no better than on many of the best farms of the Northwest. No fertilizer was used, except moderate manuring with stable manure, and all varieties were treated alike. Under these conditions common stocks of Fife and Blue Stem yielded about 25 bushels to the acre while Minnesota No. 163 yielded 29 bushels. The average yield per acre of wheat in Minnesota is several bushels below where it should be maintained, and the quality is not as good as is warranted by our exceptional conditions of soil and climate. While our wheat is the best climate. While our wheat is the best in the country, it could be better if when compared with the increased value of varieties which will raise the average yield per acre even only part of a bushel.

In 1900 the wheat acreage of Minnesota was nearly 5,000,000 acres, while that of the two Dakotas would carry the total to nearly 11,000,000 acres. The increased yield on the same basis as shown by the work at the experiment station, would give the three states 44,000,000 bushels or more of wheat, and even if the average of four bushels was not maintained, one bushgained to the acre would bring a handsome dividend, enough indeed to lift

the country from plain necessities al-

most to the point of luxury, or at least to supply many additional comforts. The St. Anthony Station has origi-nated many varieties of wheat, but only a few of the very best have been sent out among farmers for further experimentation in different parts of the State. No. 163 is so well established that a considerable quantity has been distributed.

That a superior new grain introduced into any State may prove of special importance and value it is only necessary to call to mind what the introduction of Fife wheat or Blue Stem brought to the Northwest country. Very little is known as to the history of the introduction of either wheat, but what has been done by individuals or by chance may be duplicated through systematic effort with still other superior or ex-

cellent varieties of grain.

The new wheat, Minnesota No. 163, of which hundreds of bushels have gone out among the farmers of the State, came from a single kernel planted in 1892. In 1893, 75 plants, grown a foot apart were harvested. In 1894, a small field plot was grown. In 1898, several small fields were planted, resulting in more than 300 bushels, and then began the distribution among the farmers. At an annual increase of ten-fold this wheat could be so increased as to make the entire crop of the State, in seven more years, or in fifteen years, a hundred millions or more bushels from the single parent seed.

Similar instances of the rapid spread of valuable products are common. farmer in Walsh County, N. D., received a small package of white Russian oats. In a few years these oats had so mul-

not how other products of the farm may advance in price, wheat is one crop the Northwest farmers will always take in-to consideration. The present average yield is too low, and the enterprising farmer wants more. The highest average in Minnesota any year in the last ten years was 17 bushels, and that was in 1891. In 1900 it was a little over 10 The better seed and better preparation for crops will produce the desired results or much nearer to it than at present. Land must be maintained to a high state of fertility, and to do this the farmers must, as in any business matter, use intelligent methods. Systematic cultivation while producing rotative crops on the soil in connection with improved stock raising will accomplish the desired end.
Our farmers are beginning to learn

that farming is not a mere expenditure of individual effort. The same consideration in a general way given to garden and field crops that is devoted by 'he practical stock grower to the development of animals in the West, would cause surprising results. work of the experiment station, at St Anthony Park, Minn., Fargo, N. D., and Brookings, S. D., are for the benefit of the farmers and the officers of these stations are always ready to aid by advice as far as possible any who may apply for information. These stations issue bullentins, sent free to any address, upon a variety of live subjects, and copies should be in the hands of every progressive farmer.

Where They Farm by the Mile.

As illustrating the wonderful possibilities ahead of that wonderful region

PLOWING IN M'PHERSON COUNTY.

tiplied that nearly the entire crop of known as the "wheat belt" of Kansas he county was from this stock of seed, and it has now gone into nearly every part of the State. The superintendent of the Brandon experimental farm says, he believes that the yield of oats in Manitoba had been increased an average of two bushels to the acre by the distribution of a few superior varieties from the experimental farm.

Professor Henry, of the Wisconsin experimental station, gives the history of a barley from Germany through his station to the Northwest, which has proved of value not easily calculated.

A description of the work attending the numerous trials covering a period in the country, it could be better if farmers would practice systematic rotation, using some crops to prepare the soil for others. The result of experiments at the St. Anthony farm and elsewhere seems conclusive that better varieties of wheat can be made at an expense which is indeed very small when compared with the increased with the increased with the increased when compared which will raise the Northwestern farmer. Dairying and Northwestern farmer. Dairying and general stock farming should and will make inroads upon wheat-raising as a 'The wheat crop, single farm crop. however, is destined to continue as an important factor on the most of the farms of Minnesota and the Dakotas, where all the conditions are favorable, but the yields are too low. Perhaps since the rotation and fertilizing of the fields, which came with the keeping of live stock, there will be an increase and the increase is certain if the lessons of the experiment stations are followed in the matter of rotating, pasturing, manuring, and cultivating.

The Northwest will always be a great To CURE A COLD IN ONE DAY
Take Laxative Bromo-Quinine Tablets. All
druggists refund the money if it fails to cure.
E. W. Grove's signature is on each box. 25 cents.

we present a view of a 40 acre wheat field in McPherson County which is undergoing the operation of fall plow ing as they understand it out there.

The farm on which this picture was taken belongs to M. G. Riddell, of Con-

way. Mr. Riddell is an old student of the agricultural college and has learned to make his hands perform what his head contrives.

Having a 20 horse power traction engine and the necessary plows at hand, and also having considerable fall plowing to do, Mr. Ridell simply put the two together with the result that his work was done, and well done, at the rate 2½ acres per hour.

He constructed a doubletree of oak

it by means of log chains, first, how-ever, supplying each plow with a short tongue to enable him to make the necessary turns. When properly adjusted his machine cut a strip of about 11 feet in width, and at a much more rapid pace than the average farm team would

The cost of this interesting experi-ment, including fuel, help, etc., was just \$1 per hour, and his 40 acre field was plowed in just one day and a half, including the time necessary to secure the proper adjustment of the various parts of the "machine."

Mr. Riddell has demonstrated to his own satisfaction that he can plow much more rapidly and do as good work with t...s "machine" as he can with the horse plow, and that the cost is very much less. He is planning to plow his half section of wheat field entirely by use of the steam plow next season.

When writing advertisers please mention Kansas Farmer.

f You are Sick

Let me Know it.

I wish simply your name and address—no money. Tell me which of these six books you want.

I will send it with an order on your druggist to let you have 6 bottles Dr. Shoop's Restorative. He will let you take it for a month; then if it succeeds, he will charge you \$5.50 for it. If it fails, he will send the bill to me. He will trust to your honesty, leaving the decision to you.

Such an offer as this could not be made on any other remedy. It would bankrupt the physician who tried it. But in five years I have supplied my Restorative on these terms to 550,000 peo-ple. My records show that 39 out of each 40 paid for it, because they were cured.

This remedy alone strengthens those inside nerves that operate all vital organs. It brings back the only power that can make each organ do its duty. No matter how difficult the case, it will permanently cure, unless some organic trouble like cancer makes a cure impossible.

I have spent my lifetime in preparing this remedy. I offer now to pay for all you take if it fails. I can not better show my faith in it. Won't you merely write a postal to learn if I can help you?

Simply state which book you want, and address Book No. 2 on the Heart Book No. 3 on the Kidneys Book No. 3 on the Kidneys Book No. 4 for Women Book No. 5 for Men Book No. 5 on Rheumatism

Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

The Question of Sorghum Poisoning.

Adam Kraft, a bachelor south of Gant, was brought here yesterday on a charge of insanity. Kraft is a farmer surrounded by ranchmen who, he claims, have persisted for years in allowing their stock to run over and destroy his crops. This spring he planted cane around his land as a protection, knowing how fatal it is to stock when tney eat it. He thought it would compel the ranchmen to herd and it worked successfully until Wednesday, when 8 head of milch cows belonging to C. O. Day ate of the cane and died. This led to the banding together of part of his neighbors who visited him with rope and guns and compened him to plow up the cane, threatening him with hanging if he did not leave also. This he refused to do and they then brought the charge of insanity against him. He was released this afternoon and immediately instituted proceedings against his persecutors.—Special to the Omana (Neb.) News.

EDITOR KANSAS FARMER:-The above and several articles of recent publication in the FARMER is certainly very conflicting, to my personal knowledge. I have never known of an animal dying from eating green cane in this county. I believe if examined nine cases out of ten that prove fatal will be found in the western or dryer portions of the State. Consequently look to the nature of soil on which cane is grown, whether clay, sand, and strongly alkaline or otherwise. If caused from drouth we ought to have a few dead cattle pretty J. T. SMITH.

Independence, Kans.

Harrowing for Hessian Fly. EDITOR KANSAS FARMER:-I, as one of our readers, write you in regard to the Hessian fly in wheat. Would it be advisable to give it a good harrowing? Would that destroy any or enough of the flies to pay for the work? If so, when would be the proper time to do it? Answer through the columns of your FRANK WHITLEY. paper.

Buckeye, Kans. If the harrowing will envigorate the wheat it may do some good. It is not likely to dislodge the fly. So far as observed no writer has recommended harrowing as a remedy.

The Kansas Farmer requests farm-

ers to report to it as to the presence or absence of fly.

What shall it profit a man to seed and harvest a section and then lose his crop from inability to safely shock or

Bug and weed destruction is crop promotion.

Constipation is the rock that wrecks many lives; it poisons the very life blood. Regularity can be established through the use of Prickly Ash Bitters. It is mildly cathartic and strengthens the stomach, liver, and kidneys.

The American Royal Cattle Show

At Kansas City, October 21-26, 1901.

Handsome Herefords, Shapely Shorthorns, Grand Galloways, Absent Angus.

Also the Annual Horse Show and the Second Annual Show and Sale of the American Angora Goat Breeders Association

The entire aggregation constituting the most successful live stock event ever held. A complete report of the show and sales of cattle and goats.

The Royal Cattle Show of 1901 has come and gone, and there will linger in the memory of those who were privileged to attend it thoughts and lessons that will continue through life. The mighty bulls passing in ponderous procession or standing in stately dignity be-fore the judges; the no less imposing cows, and the less mature but equally perfect animals of lesser age all bring their lessons of the wonderful possibil-ities of the breeder's art and the high perfection to which it has attained.

The show was the sight of a lifetime, and even old and experienced breeders learned lessons that will benefit them and the breeds they foster.

The weather during the week was ideal and the crowds of people who daily filled the show tent, the stables, and the sales-ring attest the interest taken by the people. The animals shown were of the best that nature, aided by the breed-er's art, can produce, and it was con-ceded by the most prominent breeders in attendance that probably this show could not be duplicated on earth. The attendance was large. Prominent breeders from every part of the Union were there, while the students of the State agricultural colleges of Kansas, Iowa, and Oklahoma showed by their presence in which direction their ambitions lie.

Taken as a whole the show was a world-beater, and those people who failed to attend were truly unfortunate.

The new stock-barn was the subject of universal commendation on the part the stockmen showing and visiting at the show.

T. F. B. Sotham, Chillicothe, Mo., former president of the American Here-ford Breeders' Association, was one of the most enthusiastic of these. The big, roomy, box-stalls and the rows of stalls

with big alley-ways between them, seem to be just what the exhibitors need.
"Nothing could be nicer," said Mr. Sotham. "The barn is as fine as you will find anywhere. There is every convenience for caring for the cattle. Then there is the sale barn. A finer one can not be found. And when you add to it the big show tent, Kansas City has facilities for conducting a fine stock show that other cities do not have."

Last year's show was a success, but in comparison this year's event is vastly its superior in every respect. The attendance, especially of out-of-town peo-ple, and the interest manifested, has been far greater than the most sanguine ered that the show was planned under difficulties—that the territory from which the bulk of the exhibits came, suffered severely from drouth—that a state of a goat show, and they are determined, say they, to prove it by getting up one that will "beat the band."

The plans for the hog show as for a cattle, sheep, horse, or a goat show, and they are determined, say they, to prove it by getting up one that will "beat the band." men and breeders saw prospective profits burned up by the scorching rays of the sun—that the Angus breeders with-drew from the sale because of the severe blow dealt to the live stock industry by the failure of crops—and that at one time it was even thought advisable by some of the leading breeders to abandon the show for this year entirelywhen all these things are taken into consideration, the success of the event is all the more gratifying.

That the great American Royal will continue to be an annual event in Kansas City there is now no doubt. In the minds of the promoters this question has been positively settled. The only question with them now is as to the scope of the show to be given next year, and already this matter is being serious ly discussed by the management of the show and by the breeders, who are without exception enthusiastic over the possibilities which the show this year There can be no question as to the attitude the several breeders' associations will take. The Hereford, Shorthorn, and Galloway associations are thoroughly satisfied with the results achieved this year. That the Angus breeders will be ready to join in the show next year there is no doubt. Many of them have attended the show and have been heard to express regret that their association withdrew this year.

No man has done more for the success of the show than has Eugene Rust, traffic manager of the Kansas City Stock Yards Company. He has ably seconded the efforts of General Manager C. R. Thomas, and as the representative of the Stock Yards Company has been un-tiring in his labors to provide the unsurpassed facilities which have been provided for the show. Mr. Rust is more than satisfied with the result. He is enthusiastic. As to the permanency of the show, he says that that question has been effectually disposed of. The show, Mr. Rust declares, is a fixture in Kansas City. The only question now is

as to its scope another year.

The horse breeders are already talking about a breeding horse show for next fall, in contradistinction from, but not in rivalry with, the regular horse show, of ring animals, held annually. The breeders feel that their part of the dealings in horseflesh would be better subserved by a separate show, devoted entirely to brood animals, and they have been talking this over for a week or more. They base their calculations on the cattle and goat shows, and, as one of them said recently: "If folks will pay \$1,000 for a billy goat, what won't they pay for the possible sire or dam of a Cresceus?"

Hence there is strong possibility of a horse breeders' show at the yards next fall, perhaps at the same time as the cattle and goat shows, and also possibly in conjunction with the regular horse show in Convention Hall. Steps of an indefinite nature have already been taken for this, and more plans are still un-der discussion among the big dealers. Kansas City is the recognized market for horses now, and the vicinity raises the best on earth, say dealers, and as both the United States and the British governments, as well as others, but in less degree, are buying there all the time, especial attention should be called to the breeding of army mounts as a regular branch of the business.

It is this community of intesests, so to speak, among the cattle, horse, and goat men that has aroused the hog men They feel that their branch of the stock business is as good as any other, but that it has not had the recognition even that it had in the days of the old-time fair, when the fat hog was the attrac-tion par excellence. They claim that there is just as much reason for a hog show as for a cattle, sheep, horse, or

stated, indefinite yet. They are kept rather suphrosa also. But they are under consideration, and later on, say the hog breeders, there will be something do-

horse show of 1901, the 7th annual, entertained nearly 60,000 visitors at Convention Hall every night during the week. It was the greatest ever given in Kansas City, the largest attended ever held anywhere, the best or as good as the best, compared with any in any place—the horse show was done.

It was a tremendous event, the week's display of horse flesh, and its success was something remarkable. Many shows have been held here, and some have made good money and others— have not. One show cost the associa-tion \$3,000 in cold cash. But that didn't daunt the spirit of the backers—they were on deck the next year, and, be it said, they did not lose again. Lacking figures, facts are scarce regarding this show, but it is known for sure that it was a great financial success and its backers are delighted as well as satis-fied, with the results. In attendance, it far outclassed any ever held anywhere, the best informed say—even including the great ones held in Madison Square garden, New York. Artistically, it ranks, say also excellent authorities, with the model ones of the world. It was the most metropolitan affair Kansas City ever gave, excluding only the Century ball. It was the acme of smartness, and society gave it the heartiest approval. What more could have been

HEREFORD EXHIBITORS.

HEREFORD EXHIBITORS.

The complete list of breeders competing in the show and sale in the Hereford division is as follows:

Wm. Kirby, Kokomo, Ind.; C. G. Comstock & Son, Albany, Mo.; Hamp B. Watts & Son, Fayette, Mo.; W. H. Curtice, Eminence, Ky.; H. D. Martin, Shelbyville, Ky.; J. C. Andras, ir., Manchester, Ill.; C. A. Stannard, Emporia, Kans.; Makin Bros., Lees Summit, Mo.; Gudgell & Simpson, Independence, Mo.; J. C. Graddy, Versailles, Ky.; G. H. Adams, Linwood, Kans.; W. A. Colt, Manzanola, Colo.; C. N. Moore, Lees Summit, Mo.; The Stanton Breeding Farm Company, Madison, Neb.; J. M. Curtice, Kansas City, Mo.; The Lowell Barpoll & DeWitt Live Stock Company, Denver, Colo.; Estate K. B. Armour, Kansas City, Mo.; C. E. Yancy, Liberty, Mo.; R. T. Thornton, Kansas City, Mo.; Sidney G. Brownell, Leavenworth, Kans.; Steward & Hutcheon, Greenwood, Mo.; Scott & March, Belton, Mo.; J. W. Lenox, Lake City, Mo.; F. A. Baylles, Guthrie Center, Iowa; D. L. Taylor, Sawyer, Kans.; E. H. Lewis, Waverly, Mo.; W. N. Rogers, McCook, Neb.; F. H. Tuck, Houstonia, Mo.; Cottrell Bros., Irving, Kans.; Harris Bros., Harris, Mo.; T. F. B. Sotham, Chillicothe, Mo.; Wm. S. Powell, Moline, Kans.; McCloud Pearce, Belton, Mo.; Minter Bros., Craig, Neb.; J. A. Larson, Everest Kans.; Jno. Sparks, Reno, Nev.; J. T. Watson, New London, Mo.; W. J. Boney & Son, Cairo, Mo.; Walter B. Waddell, Lexington, Mo.; Z. T. Kinsell, Mt. Ayr, Iowa; H. A. Naber, Walter B. Waddell, Lexington, Mo.; Jas. A. Funkhouser, Plattsburg, Mo.; C. R. Hudspeth, Lake City, Mo.; N. S. Compbell, Bates City, Mo.; The prizes in the several Hereford classes

HEREFORD AWARDS.

The prizes in the several Hereford classes ere as follows: \$60, \$50, \$45, \$35, \$25, \$15,

were as follows: \$60, \$50, \$40, \$35, \$25, \$15, \$10, \$5.

Bull, 3 years old or over, 14 entries, 13 shown.—First, Dandy Rex, weight 2,275 pounds, Gudgell & Simpson; second, Prince Rupert, weight 2,400, W. H. Curtice; third, Improver, weight 2,325, T. F. B. Sotham; fourth, Imp. Southington, weight 2,115, K. B. Armour estate; fifth, Orphens, weight 2,305, Geo. H. Adams; sixth, Governor, weight 2,115, Cottrell Bros.; seventh, Dale 3d, weight 2,610, F. A. Baylies; eighth, Roseberry, weight 2,600, D. L. Taylor.

Bull, 2 years old and under 3, 12 entries, 8 shown.—First, Checkmate, weight 2,065, T. F. B. Sotham; second, McKinley, weight 1,950, O. Harris; fourth, Monogram, weight 1,950, O. Harris; fourth, Monogram, weight 1,955, Jas. A. Funhouser; fifth, Premier, weight 1,955, O. Harris; sixth, Actor, weight 2,075, Wm. Kerby; seventh, Prince Hesiod, weight 1,670, Makin Bros.; eighth, Blue Valley Boy, weight 1,995, Cottrell Bros.

Bull, 1 year old and under 2, 36 entries,

consideration, and later on, say the hog breeders, there will be something doing. And if all goes well, there may be prizes pinned on Poland-China and Berk shire hogs, as well as on Hereford cattle, Angora goats, or thoroughbred horses, next fall.

As for the sheep industry, it was stated about the yards that Kansas City would not be a good place for a sheep show. It is too far south; most of the sheep seek a more northerly market. But still, many are sold there, though the industry is not one that is directly in Kansas City's territory. No sheep display is contemplated at present; at least, none that will be distinctive. Some talk is heard of a show in connection with the goats, but that is merely talk so far.

A distinguishing and significant feature of the attendance at the American Royal Show was the presence of many thousands of ladies; also an unusual attendance of children and agricultural students, all of which must have a potential influence on the future prosperity of the improved stock industry, and Kansas City has great cause for congratulation for securing this important feature for live stock expositions.

While the great cattle and goat shows with, Lady Britton, weight 1,820, Gudgell & Simpson; sixth, Beau Donald 50th, weight 1,600 of Cross, weight 8,000 clayelia & Simpson; third, Beinghous the conditions of the strength of the strength

C. G. Comstock; eighth, Luminous, weight 1,5%, Geo. H. Adams.

Cow or heifer, 2 years old and under 3, 15%, Guden! Simpson; second, Golden Lassle, weight 1,7%, T. F. B. Sotham; third, Theressa, weight 1,7%, D. Harris; fourth, Martha Washington, weight 1,425, C. G. Comstock; fifth, Lady Starlight, weight 1,560, Stanton Breeding Farm; sixth, Plattsburg Mald, weight 1,365, Scott & March; seventh, Etta, weight 1,500, Miss Lou Goodwin; eighth, Lulu, weight 1,125, Geo. H. Adams.

seventh, Etta, weight 1,500, Miss Lou Goodwin; eighth, Lulu, weight 1,125, Geo. H.
Adams.

Heifer 18 months old and under 2 years,
weight 1,820, Gudgell & Simpson;
Queenly, weight 1,200, Steward & Hutcheon;
third, Galates, weight 1,300, T. F. B. Sotham;
Curth, Lady Dewdrop 2d, weight 1,455,
O. Harris; fifth, Lady Briton 3ist, weight
J. Good Cup 3d, weight 1,205, O. Harris,
Heifer, 12 months old and under 18, 25
entries, 21 shown.—First Kassis 3d, weight
1,300, C. Harris; second. Tempters Queen,
weight 1,255, Gudgell & Simpson; eightd,
Gold Cup 3d, weight 1,205, O. Harris,
Heifer, 12 months old and under 18, 25
entries, 21 shown.—First Kassis 3d, weight
1,300, C. Harris; second. Tempters Queen,
Gudgell & Simpson; fifth, Mattida, weight
1,300, C. Harris; second, Tempters Queen,
Gudgell & Simpson; fifth, Mattida, weight
1,115, Steward & Hutcheon; sixth, Blanche
Gadweight 1,150, C. A. Stannard; seventh,
Individual of the second of the second

\$60, by T. F. B. Sotnam's Improver; and the fourth, of \$40, by Geo. H. Adams' Orpheus.

Young herd, entries made up from animals in individual sections.—T. F. B. Sotnam's herd headed by Thickflesh; W. N. Rogers', by Beau Donald 28th; Gudgell & Simpson's two herds, by Martinet and Paladin respectively; Steward & Hutcheon's, by Acme; Geo. H. Adams', by Orpheus; C. A. Stannard's, by Gem's Keep On; C. G. Comstock's, by Gentry Heslod; and O. Haris', by Good Enough 3d. All prizes in this class were donated by Frank Rockefeller, Cleveland, Ohio. The first, of \$100, was won by O. Haris' Good Enough 3d; the second, of \$50, by Gudgell & Simpson's Martinet; third, of \$60, by Steward & Hutcheon's Acme; fourth, of \$40, by T. (Continued on page 928.)

Stops the Cough and Works off the Cold. Laxative Bromo-Quinine Tablets cure a cold in one day. No Cure, No Pay. Price 25 cents

Agricultural Matters.

Hard Wheat.

EDITOR KANSAS FARMER:—I have a great interest in farming in all its vargreat interest in farming in an its various branches, but especially in wheat-raising. I enclose herewith a letter, or ramer extracts from one, written by Captain D. K. Sparks, of Alton, Ill., that will doubtless be of interest to wheatraising farmers generally. I know comparatively little of the different kinds of wheat, as to its flour production, which is the point millers watch the most. Captain Sparks has been in the milling business since 1854, and for the past thirty odd years has been in Altern Ills. He hought the Wise mill to ton, Ills. He bought the Wise mill in 1863, then turning out from 300 to 500 barrels of flour every twenty-four hours. He now turns out about 1,500 barrels in the same length of time. He has spent a life-time in the milling business, hence what se says may be depended upon as being of great importance. The following are extracts from his letter:

"I am glad to know that your people are planting more wheat. I have al-ways contended that after you got about 100 miles west of the Missouri line you began to approach the arid plains, where the rain is too uncertain in July to depend upon to fill out corn, while the moisture would be sufficient to mature wheat, as wheat would not need rain after June 1. * * This saves you a strip, say about 200 miles wide, across the State north and south, that should be the extent of the wheat belt. (I went as a soldier to New Mexico in 1847 and to California in 1850, ico in 1847 and to California in 1850, crossing this country). In speaking of the land in Elk and Chautauqua Counties I can but think that this would be very good land for wheat, but the people there are stuck on stock, yet they must see that it is the past three years of good wheat crops that has lifted Kansas out of her 'oppression and unpaid debts.'

"We hear no cry of distress from Kansas now; her credit has improved immensely, and for the reason I have

given.
"While I am on this subject I wish to say a few words about some of the merits of this wheat that the millers in and around St. Louis have discovered. Kansas hard wheat makes a splendid flour, which, in my judgment, is as good as the hard spring wheat of the northwest, but that grade has the prestige of twenty-five years, while yours is just coming into notice, and it will require several years to over-come this prejudice, but if Kansas stands by her good, hard, red wheat (Turkey preferred), they will, in ten years or less time, overcome all prejudices and will surpass (probably) the No. 1 hard spring wheat. We have turned one section of our mill, 550 to 600 barrels daily, on Kansas hard wheat and the result is that in New England, wnere we had lost our trade entirely we have captured quite a good trade with our hard wheat nour right in the face of the spring wheat flour that had driven our soft wheat flour out of the In two years we have built up a trade on this hard wheat flour that keeps this section of our mill going steadily the year round. It is very difficult to sell the soft wheat flour and here at home, too, right in the center of the best soft wheat section. Our home trade, including nearby counties, is more than half hard wheat flour, so you can see the drift of this hard wheat as against the soft wheat.

'I was very sorry to note that any of your farmers were disposed to run after new gods in the shape of fancy wheat. That \$6 wheat is in keeping with some of our farmers here. They paid a fancy price for some red wheat known as 'Clawson red,' and 'Hundred mark.' They are both practically the same, a very large, soft grain that yields fairly well, but it will sprout under a heavy dew and shatter out at a fearful rate. But that is not the worst

Important News!



Send us Your Name

and P. O. address on a card and we will give you some information about Wagons that will bene- Wagons fit you greatly. DON'T BUY ONE

until you hear from us. We want name and P. O. address of every Farmer and Teamster in the state. Address THE TIFFIN WAGON CO., Tittin, O., or 1203 Union Ave., Kansas City, Mo. | milk pail. Next year we shall plant peas iness, and powers to transmit its qual-

of it. It is almost destitute of gluten or strength and will not even suit the cracker bakers. We have had no end or trouble with this miserable stuff. Its origin seems to have been in Michigan. I am confident that millers will refuse to buy it, and that they will bring such pressure to bear on our St. Louis ex-change as to refuse it a grade. I know nothing about that Russian wheat, but if it is hard like the Turkey wheat, it is all right.

J. F. CHAPMAN. Moline, Kans.

Hessian Fly Preventive.

Having observed and studied consid erably the Hessian fly and its ravages on our wheat crops, it occurs to me that some means could be devised to combat it. Last fall for the first time I noticed edivence of their attack upon my field of early-sown wheat. I dissected a few stalks and noticed the appearance of the insect in different stages of develop-ment. Not being a scientific entomologist I do not claim accuracy in my description, especially since I speak from memory nearly a year afterwards; but according to my recollection I saw spec-imens of chrysalis, or a larva enveloped in a thin brown shell; next a small, sluggish, white worm, and an insect with in-cipient wings. They appeared to subsist on the juices around the joints of the stalk, where they had their lodgings. As a consequence the stalk became sickly and ultimately died. The remedy I suggest, and expect to try on the present crop, should the fly come again, is to spray the growing wheat w.tn some arsenical solution upon the first appearance of the insect. The poisoned water will run down the wheat stalks and be gathered around the joints by the funnel shaped blades, and I do not see why it would not kill the fly. I hope Director Thorne will experiment along this line.—Stephen R. Harris, Crawford Co., O. Note.—The above was submitted to Director Thorne for his opinion, since

his name was mentioned. Below we

give his views.—Eds. Farmer.

Commenting upon the above, I would say that the larva of the Hessian fly does its mischief by sucking the juices from the growing plants and not by bit-ing; consequently arsenical poisons would not be likely to have any effect upon it. The point which Mr. Harris raises, however, is a suggestive one, and last spring we made a preliminary test on a small scale in the hope that we might destroy the eggs, for which purpose an oil emulsion would seem to be the most promising remedy. This, how-ever, was without result. I am of the opinion that if any way is to be found of reaching this pest through the use of insecticides, it must be through the destruction of the eggs, and if farmers are to use it effectively they must learn to recognize these eggs and thus know when to apply the remedy. This is a matter of no real difficulty, as the eggs are easily seen with a magnifying glass of moderate power, and when one has learned what to look for they can be detected with the unaided eye. It seems to me the more practical method of dealing with this insect would be to sow small plots of wheat at varying dates through September and watch these closely for the first appearance of the eggs. Our experience this year indi-cates that egg laying may be continued a week or ten days. It ceased here about the first of October. Whether it was terminated by the appearance of frost we can not say, nor can we speak definitely as yet concerning the effect of the sharp frosts we have had upon the exposed eggs. This point, however, is being carefully watched, but the testimony of earlier observers is that egg laying does not usually continue longer than it has done in this case; so the farmer who will learn to watch for these eggs may be reasonably sure that it will be safe to sow wheat at the end of a week after egg laying has commenced. This, it seems to me, is a thoroughly practical rule, available every where, under all latitudes and on all soils, and one which is within the reach of every farmer.

It is too late now to test any spray ing treatment in this region; moreover such a test would have been complicated by the appearance of frosts.-Ohio Farmer.

Experience With Cow-Peas.

EDITOR KANSAS FARMER:-We have just cut and put up our crop of cow peas and Early Amber cane. The seed of the cow-peas and cane were mixed and sown broadcast and covered with a harrow. The crop was cut and cured in cocks and stacked in ricks. We have a ration that we think will make the kept in the stables and fat. cattle smile and also help out at the

with cane, and peas with Kaffir-corn, both drilled and broadcast, so as to cut with corn harvester and binder. sometimes see complaints from growers that stock will not eat cow-peas. Like most legumes they are pretty rank when green so we must cultivate a taste for them in our stock. This is best done by commencing with a few ripe peas and cured hay. Stint the stock on other feed for a few days and when they once become accustomed to them there will be no further trouble. It is well to start in this way as in a herd of cattle there are always many that would gorge themselves while others will scarcely taste the vines at first, more especially

if the vines are green.

Peas drilled in with a corn planter from June 14 to 20 are a perfect mass of pods and ready for picking now. (They have never had but one good rain, but the vines are so heavy there is hardly room to pass between the rows.) Peas planted August 2 are trying to beat old Sol. Not being allowed moisture enough to make vines they have gone into the pea business and are in full bloom—just thirty-six days from the time they were planted—and 10 to 12 inches high. Cow-peas used as a pasture are worth several dollars an acre for that purpose, in fact it is a loss to plow under such a crop if they can be pastured and the stock remain on the and and the manure pluowed under.
Independence, Kans. J. T. Smith.

Farm Notes.

N. J. SHEPHERD, ELDON, MO.

Good stock looks better, does better, and pays better than scrubs.

The profitable culture of the soil de pends upon its thoroughness.

Good stock will not sustain its excel-lence long unless well cared for. Standing on bare, hard floors can not but be injurious to the horses' feet.

The nature of farm life is in no small

degree conductive to economy. As long as an animal is not growing its keep is expensive no matter what

Feed all stock all that can well be as similated and turned into growth.

A horse will be able to do more hard work when fed on oats than when fed on corn.

If possible, windows in stables should be so arranged that the light will strike both eyes with equal force. The largest profits and quickest returns come from keeping stock in mar-

ket condition at all times. A mash composed of 2 quarts of oats, 1 of bran, and a half pint of linseedmeal is good for horses.

Systematic arrangement and laying out of the work for several days ahead, will economize time.

Nearly all clay lands need clover roots to penetrate and loosen their compact strata and supply vegetable mat-

In arranging the teams it is always an item to equalize the strength of the horses as much as possible.

A good index to the health of animals is the condition of their hair. The hair of an animal out of condition becomes dull and lustreless.

Unless manure is under shelter the sooner it is spread upon the fields the better. There is much waste with unsheltered manure, especially in winter.
One advantage in keeping young,
thrifty stock is that they are earning

something for you every day. Overfeeding produces indigestion, inaction of the stomach, and their attendant evils, and often permanently injures breeding animals.

If the horses are to secure the greatest amount of benefit from their feed, give them sufficient time to masticate it before putting them to work.

A horse should never be fed more than it can digest readily. It is not what is eaten but what is digested and assimilated that furnishes str muscle.

For home plants, and in fact for all plants for that matter, nothing is better than fresh mold just from the woods.

The brood sow after her pigs are a few days old requires a good deal of rich food to keep up her condition and maintain a good flow of milk.

It can not be too well understood that plant life can not be sustained without proper feed any more than animal life can. Make safe and apply all the manure possible.

Many products are spoiled in putting them up for market. Quality is as important as quantity and should be as earnestly sought after in the products of the farm.

Colts from sires that are ridden, driven, and worked are uniformly more tough and active than those from sires An animal's strength, activity, hard-

Know She Can Help You as She Did Me." "DEAR MRS. PINKHAM: The world praises great reformers; their names and fames are in the ears of everybody,

MRS. H. F. ROBERTS

Says to All Sick Women: "Give

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and the public press helps spread the good tidings. Among them all Lydia E. Pinkham's name goes to posterity

MRS. H. F. ROBERTS, County President of W. C. T. U., Kansas City, Mo.

with a softly breathed blessing from the lips of thousands upon thousands of women who have been restored to their families when life hung by a thread, and by thousands of others whose weary, aching limbs you have quickened and whose pains you have

taken away.
"I know whereof I speak, for I have received much valuable benefit myself through the use of Lydia E. Pink-ham's Vegetable Compound, and for years I have known dozens of women who have suffered with displacement, ovarian troubles, ulcerations and inflammation who are strong and well to-day, simply through the use of your Compound."—MRS. H. F. ROBERTS, 1404 McGee St., Kansas City, Mo.—\$5000 forfeit if above testimonial is not genuine.

Don't hesitate to write to Mrs. Pinkham. She will understand your case

perfectly, and will treat you with kindness. Her advice is free, and the address is Lynn, Mass.

ities depend on its muscular structure, which comprises all the lean or organ-

The Red Enemy of the Grasshopper.

EDITOR KANSAS FARMER:-In your issue of October 17 you mention a small red bug which had attacked the native grasshoppers in Reno County and give invitation for information concerning the same. In 1874, during the so-called "grasshopper year," when the air was clouded with red legged 'hoppers, many of them were found to be dying, and upon examination they were discovered to be infested with a small red parasite that seemed to sap the very life of Mr. Hopper. A curious feature in connection with this was that no sooner did a the ground than several of his fellow 'hoppers would "hop" onto him and gnaw him limb from limb—veritable cannibals.

It has always been the writer's opinion that to these parasites Kansas owes its freedom, of late years, from the rav-

ages of these migratory locusts.

If I remember rightly, the late Prof. V. Riley, formerly State entomologist of Missouri, described this parasite and its valuable work.

Clearwater, Kans. [The editor will be pleased to have reports on the work of this bug this season.l



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The Stock Interest.

THOROUGHBRED STOCK SALES.

Dates claimed only for sales which are advertised or are to be advertised in this paper.

November 6, 1901—B. O. Cowan, Shorthorns, KansacCity. November 7, 1901—W. D. Flatt, Shorthorns, Chicago. November 12 and 13, 1901—D. L. Dawdy & Co., and urdy Bros., Shorthorns, Kansas City. November 21, 1901—Ernst Bros., Shorthorns, Tecum-by Neb.

November 20-22, 1901—National Hereford Exchange, Seath St. Louis, Ill. (Sotham management.) December 10 and 11, 1901—Armour-Funkhouser, Herefords, Kansas City. December 13, 1901—H. C. Duncan, Shorthorns, Kan-

December 18, 1901—H. C. Duncan, Shorthorns, Kansas City.
January 28 and 29, 1902—Winn & Mastin. Kansas City, Poland-Chinas.
January 28 to 31, 1902—Sotham's Annual Criterion Sale at Kansas City.
February 11, 12, and 13, 1902—J. F. Stodder, J. W. & J. C. Robison, and Snyder Bros., Winfield, Kans., Combination Sale.
February 25-27, 1902—C. A. Stannard and others, at Kansas City, Mo., 200 Herefords.
March 20 and 21, 1902—Edward Paul, Dispersion Sale of Gallowsys at South Omaha.
March 25-27, 1902—National Hereford Exchange, Chicago, Ill. (Sotham Management.)
April 16, 1902—W. O. Park, Atchison, Kans., Aberdeen-Angus.

deen-Angus.
April 22-24, 1902—National Hereford Exchange, Kansas City, Mo. (Sotham Management.)
April 25 and 26, 1902—H. O. Tudor, Holton, Kans.,

April 25 and 29, 1902—H. O. Tutor, Holout, Raise, Shorthorns.

May 27-29, 1902—National Hereford Exchange, Oma-ha, Neb. (Sotham management.)

June 24-26, 1902—Natiodal Hereford Exchange, Chi-cago, Ill. (Sotham management.)

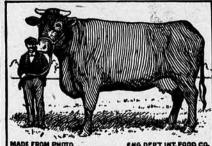
International Live Stock Exposition

With the earliest preparations for the Second Annual International Live Stock Exposition it was calculated that there would be in increase of at least onefifth of the entries, and probably one-third in attendance over the initial eifort of a year ago. Now that the official entry books have closed, with a small avalanche of nominations in all classes rushing in at the last moment to reach the office of the general man-ager before the last call, October 15, the estimate of the first named condition has been shown to have been extremely modest, and the matter of attendance is fairly determined by the plans being made by parties in every part of the country, the great interest manifested everywhere, the inquiries for detailed information regarding accomodations in Chicago during the first week in December and the pronounced success of the initial show that will have its natural influence. The fifth an-nual convention of the National Live Stock Association is regarded as one of the most important gatherings of representative live stock interests even held in America, and the measures and matters to be discussed make it an oc-currence of the most vital import to the live stock industry of the world.

Within the past few days the finishing touches have been put to the most complete, spacious, and generally at-tractive live stock exhibition building in the world. Every modern idea has been employed with a view to the comfort and care of the blue-blooded animals and the convenience, safety, and the full opportunities of the public to view the exhibits. This new building, 600 by 250 feet in dimensions, and constructed entirely of steel, brick, and glass, will house the cattle exhibit of the International Exposition, and during other pe riods of the year will be devoted to exhibition purposes. Divided into large exhibition rooms, each as large as the average main building of a fair or exhibition, an intervening space of about 50 feet, and extending the full width of the structure, will provide for a splendid exhibition and judging ring, surrounded by tiers of seats for the public. The floors are of brick, beneath which lies an extensive and perfect drainage system, and the building furnishes accommodations for several thousand head of cattle and wide promenades for the thousands of visitors who delight in viewing the fine points of these aristocratic specimens. Cattle of the choicest kind and most advanced quality, the result of generations of the most careful are to be exhibited this year to represent the highest degree of breeding attained in this country and abroad From the European countries come the best of their live stock products, and this country is prepared to demonstrate the superiority of American methods and facilities over the traditional claims of the older countries.

The Southwestern Passenger Associa tion this week entered the agreement of the passenger associations covering the entire country by adopting a rate of one fare plus \$2 for the round trip, and in several sections arrangements are being made for full special trains that will bring the throngs to the exposition and take them back home. The National Live stock Association has chosen the Great Northern hotel for headquarters, and these will be established November 1 and placed in charge the fact again, that in all this world,

LARGEST COW IN THE WORL



tonic effects it Cures or Prevents Disease. It is a safe vegetable medicinal preparation to be fed in small sized feeds in connection with the regular grain. If Fattens Stock in 30 to 60 Days less then, because its aids Digestion and Assimilation. In this way it saves a large amount of Grain. The use of "INTERNATIONAL STOCK FOOD" only costs are FEEDS for ONE CENT. The action of the many substitutes or imitations. It always pays to feed the best. "INTERNATIONAL STOCK FOOD" is endorsed by over 100 leading Farm Papers.

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go from Denver to Chicago at that time and remain until after the close of the exposition. Chicago is making great preparations for taking care of the crowds of visitors. Citizen's committees are working busily on plans for the comfort and accommodation of the throngs, and a number of elaborate schemes for special entertainment are being studied. The business houses are taking cognizance of the approaching event by planning special offerings, and the ceremonies committee is meeting with success in arranging a number of attractive and impressive occasions during the exposition. President Roosevelt has shown a great interest in the exposition and its objects, and has promised to lend every aid toward its success now and in the future.

Sheep Feeding in Nebraska.

The Nebraska Experiment Station has just issued Bulletin No. 71, which gives the results of some experiments in feeding sheep on different rations, with and without shelter. The bulletin may be obtained free of cost by residents of the State upon writing to the Agricultural Experiment Station, Lincoln, Nebraska.
Ten lots of lambs were fed. Alfalfa

and sorghum hay were used as rough-ness, 4 lots being fed on sorghum and 6 lots on alfalfa hay. Three lots had a shed with protected yard attached, while 7 lots had open yards with slight protection from a low shed some 25 feet to the north.

The lambs with shelter weighed an average of about 56 pounds each at the beginning of the experiment, while those in the open yards were slightly

larger, weighing 61 pounds average.
Of the 6 lots on alfalfa, 3 were under shelter and 3 were in open yards, each lot under shelter being duplicated by a lot in the open yard.

Three different grain rations were fed to the lambs on alfalfa. Lots 1 and 4 received alfalfa and corn. Lots 2 and 5 received alfalfa and a grain ration of three-fourths corn and one-fourth oats. Lots 3 and 6 received alfalfa and a grain ration of three-fourths corn and onefourth bran.

Lots 7, 8, 9, and 10 were fed sorghum hay and the following grain rations: Lot 7 received sorghum hay and corn. Lot 8 received sorghum hay and threefourths corn with one-fourth oats. Lot 9 received sorghum hay and threefourths corn with one-fourth bran. Lot 10 received sorghum hay and five-sixths corn with one-sixth oil-meal.

The 3 lots under shelter on alfalfa and a grain ration made an average gain of 34.3 pounds in ninety-eight days.

The 3 lots in open yards on alfalfa and a grain ration made an average gain of 33.2 pounds in ninety-eight days.

The 3 lots in open yards on sorghum

hay and grain rations containing corn, oats, and bran, made an average gain of 20.7 pounds in ninety-eight days.

The 1 lot in open yard on sorghum nay and corn with one-sixth oil-meal gained 26.7 pounds in ninety-eight days. The 6 lots on alfalfa and grain made an average profit of \$0.72 per head.

The 3 lots on sorghum hay, corn, oats, and bran made an average profit of \$0.31 per head.

The 1 lot on sorghum hay and five sixths corn, with one-sixth oil-meal made an average gain of \$0.38 per head. The season was favorable for gains, but the price of \$5 per 100 at which the

lambs sold made the profit small. E. A. BURNETT.

Nebraska Experiment Station.

Kansas Grows Fast Horses.

When Wichita goes to Lexington and takes best money in the best race Kentucky can produce, as Wichita did, says the Wichita Eagle, it is time to state of Secretary Chas. F. Martin, who will for horses, southern Kansas, with its out with carbolic acid 1 part to 20 parts Kansas Farmer.

clear, dry air, its mild winters, its majority of sunshine days, is incomparable.

Kentucky has the reputation; south ern Kansas has the unexcelled conditions. The Eagle pointed out two years ago that the day would come when a Kansas-trained horse would go into Kentucky and beat her best, or the best there congregated from other States. That thing has come to pass.
It will be repeated later. Why?

Why has this part of Kansas produced and prepared so many race takers? Was it a mere accident that Jo Patchen and John R. Gentry were from this section? Or was it just a happen-so that Edith W., who the other day paced the 3 fastest miles ever made by a mare in a race, got her training here? Is it only an exceptional incident that this portion of the Sunflower State has in every State almost in the Union horses which are in the fast classes?

Time will prove that the gratifying way horses trained in this neighborhood have of taking races, is due to peculiar location of this region. It lacks the rigors of the North, the enervation of the South, or the Pecific slope. It is not too low or too high to impair lung development. The infrequently interrupted run of pleasant weather permits steady training. The Kansas-trained horse has wind and bone in perfection. The Kansas-trained horse is ready sooner for the race; he is faster in the race; he can stand more

of them than any horse in the world. The winner of the rich stakes Kentucky recently was trained in Wichita, a city where, last week, a gentleman's road race developed a half mile in 1:05, which has other fast horses coming, and of which Kentucky will here again in the future. will hear again in the future.

The Veterinarian.

We cordially invite our readers to consult us whenever they desire any informatian in regard to sick or lame animals, and thus assist us in making this department one of the interesting features of the Kansas Farmer. Give age, color, and sex of animal, stating symptoms accurately, of how long standing, and what treatment, if any, has been resorted to. All replies through this column are free. In order to receive a prompt reply, all letters for this department should give the enquirer's postoffice, should be signed with his full name, and should be addressed to the Veterinary Department, Kansas Farmer, Topeka, Kans.

Acidity of Stomach.—I have had trouble with my cows chewing sticks, boards, and old bones. They have had plenty of good pasture, water, and salt all the time, but are very thin in flesh and in bad condition. I should like to know what to do for them.

MRS. ALMEDA DUNAHUGH. Hoyt, Kans. Answer.—Give 4 ounces of lime water to each once a day in drinking water.

Snake Bite.—I have a cow weighing about 1,200 pounds. About three and one-half months ago I noticed a lameness in the right hip. I first noticed swelling around the hoof, although it might have been swollen higher up at the time. She has been in town with the otner cows, and he nerder says he does not know of anything having hap-pened to her. The leg was swollen twice its natural size, in fact so tight | that the skin cracked in several places, and when I would rub my hand over it it would rattle like paper. She is in good flesh and does not seem to be sick. Gives about a gallon of milk twice a day, but the swelling is there, although not nearly so bad. A lump will appear first in one place and then in another, which breaks and runs a bloody matter, which has a very bad odor. What is the matter and what shall I do to cure her?

Atchison, Kans. Chas. O'Connor. Answer.—Open up freely and wash

of water. Wash it out 3 times a week and use carbolized vasaline externally and in openings.

Texas Fever.—Can you tell me of a remedy to cure Texas fever, as I am going to move to Oklahoma and take cattle from the North with me? Clay Center, Kans. BERT WHITE.

Answer.—There is no known remedy that will cure Texas fever. You can have them inoculated so that they will be safe.

A New Aid in Determining the Location of Well Water.

One of the recent improvements which the United States Geological Survey has introduced in its excellent series of geologic maps is an arrangement of lines by which the depth of the rock layers which are known to produce water can be determined. These lines are drawn to show the depth below the surface of both the upper and lower faces of the water bearing rocks in the section covered by the map and add a valuable feature to these already useful publications. The information on which the introduction of the water lines is based is being gathered by skillful geologists who are making a thorough study of the underground formations for the express purpose of locating waters which will be available for use by means of wells. In certain parts of the country, as upon the plains and in the more arid West, these guides to the underground waters will be of the greatest service, not only to the farming population but to the towns and cities which are in need of a municipal water supply. Maps of portions of North and South Dakota, Wyoming, and other sections of the Great Plains area will soon be published which will contain this new feature. The Geologic Folio embracing the country adjacent to the city of Washington, and of the section about Pueblo and Spanish Peak, Colorado, were among the first to exhibit the water lines.

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T. B. HUDSPETH, Sibley, - Jackson County, - Missouri.

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Highest market price paid. Farmers will get 50 cents to \$2.00 more by shipping to us their... Cattle and Horse Hides than they can by selling same to the local butcher. Prompt CASH RETURNS at highest market price guaranteed. Write for price list and shipping tags. ANDERSCH BROS., Dept. 10.
412-415-419 Main St., Minneapolis, Minn.

THE AMERICAN ROYAL CATTLE SHOW.

(Continued from page 925.)

F. B. Sotham's Thickfiesh; fifth, of \$30, by C. A. Stannard's Gem's Keep On; sixth, of \$20, by Gudgell & Simpson's Paladin; and the seventh, of \$15, by C. G. Comstock's Gentry Healed.

and the seventh, of \$10, \$20 Gentry Hesiod.

Calf herd, entries made up of animals in individual sections.—O. Harris' Good Enough 3d; T. F. B. Sotham's Lodestar; Gudgell & Simpson's Paladin; Geo. H.



Adams' Orpheus; and Steward & Hutcheon's Move On. All prizes were donated by Frank Rockefeller, Cleveland, Ohlo. First prize of \$100 was won by O. Harris' Good Enough \$3c; second, of \$30, by Gudgell & Smpson's Paladin; third, of \$50, by Steward & Hutcheon's Move On; fourth, of \$40, by T. F. B. Sotham's Lodestar; fifth, of \$20, by Geo. H. Adams' Orpheus.

Two animals of either sex, produce of one cow.—Entries: T. F. B. Sotham's Benefice and Bequeather, out of Beatrice, Golden Lassle and Thickfiesh out of Grove Lassie; Z. T. Kinsell's McKinley and St. Elmo out of Mabel 2d; Geo. H. Adams' Orpheus and Lulu' out of Luminous; O. Harris' Troublesome and Betty 2d out of Betty; Kassil 3d and Kassie 4th out of Kassie; Gudgell & Simpson's Modesty and Modesty 3d out of Mignonette; Gipsy Lady 2d out of Mignonette; Gipsy Lady and Gipsy Lady 2d out of Glpsy Lass; C. G. Comstock's Lady Briton 3lst and Lady Real 30th out of Rorrit; Steward & Hutcheon's Matilda and Madge out of Margery. Of the total prize money \$40 was given by the Transit Hotel of Kansas City. Awards: First prize of \$70 went to Z. T. Kinsell's McKinley and St. Elmo; second, of \$50, to Gudgell & Simpson's Modesty and Modesty 3d; third, of \$40, to T. F. B. Sotham's Thickflesh and Golden Lassie; fourth, of \$20, to Steward & Hutcheon's Matilda and Madge; fifth, of \$10, to O. Harris' Kassil 3d and Kassie 4th.

Four animals of either sex, get of one bull.—Entries: Gudgell & Simpson's Dandy Rex, Mischlevous, Silver Lining 5th, and Priscilla 5th, sired by Lamplighter; T. F. B. Sotham's Checkmate, Thickflesh, Pure Gold, and Golden Lassie, by Corrector; O. Harris' Burke, Betty 2d, Lady Dewdrop, and Silver Cup, by Benjamin Wilton, O. Harris' Blanche's 2d, Lady Benfield, Lady Machless 3d; and Lassie 5th. The prizes were awarded as follows: First, of \$90, to T. F. B. Sotham's Corrector herd; second, of \$55, to Gudgell & Simpson's Lamplighter herd; third, of \$55, to O. Harris' Benjamin Wilton herd; fourth, of \$55, to Steward & Hutcheon's Dalixe Ports of the prize money was d

HEREFORD FAT STOCK.

In the Hereford pure-bred division for steer, spayed or martin heifer 2 years old and under 3, 4 entries—First, \$40, Alamo Champion, weight 1,840, John Sparks, Reno, Nev.; second, \$30, Penelope 3d 101948, weight 1,350, Scott, & March; third, \$20, Penwiper 91697, weight 1,635, Gudgell & Simpson.

One year old and under 2, 3 entries—First, \$40, Clipper 118057, weight 1,430, T. F. B. Sotham; second, \$30, Mistake, weight 1,510, Gudgell & Simpson; third, Donald 820, weight 1,215, Gudgell & Simpson.

Sweepstakes steer, any age, \$40, awarded to Sotham's Clipper, which won first in yearling class.

Sweepstakes steer, any age, \$40, awarder to Sotham's Clipper, which won first in yearling class.

Grade Hereford fat stock.—Two years old and under 3, 3 entries—First, \$40, Adams, weight 1,360, Geo. H. Adams, Linwood, Kans.; second, \$30, Jack. weight 1,850, U. S. Campbell, Bates City, Mo.; third, \$20, Bob, weight 1,305, Geo. H. Adams. One year old and under 2, 3 entries—First, \$40, Roan Lad, weight 1,325, Steward & Hutcheon, Greenwood, Mo.; second, \$30, Bobs, weight 1,165, Macin Bros., Lees Summit, Mo.; third, \$20 Right Sort, weight 1,145, Makin Bros.

In the class under 1 year old there was but 1 entry, Warrior, weight 910, by Minier Bros., Craig, Neb.

Sweepstakes for grade Herefords, any age, \$40, was awarded to Roan Lad, weight 1,325, Steward & Hutcheon.

marine Sures. On the Discontinuous and Mades to the Marine by Orpheus; Gudgell & Simpron, and Mades by Dixie, Geography of the Marine by Orpheus; Gudgell & Simpron, and Mades by Dixie, Geography of the Marine by Orpheus; Gudgell & Simpron, and Mades by Dixie, Geography of the Marine by Orpheus; Gudgell & Simpron, and Mades by Dixie, Geography of the Marine by Orpheus; Gudgell & Simpron, and Lasder St. The prizes were awarded as follows: Pirst, of 80, 60 and 12 horn breeders having animals in the Royal show:

H. A., Barber, Windsor, Mo.; W. A. Boland, Grass Lake, Mich.; G. M. Casey, Shawnee Mound, Mo.; C. E. Leonard, Bell Air, Mo.; J. G. Robbins & Sons, Horace, Ind.; T. J. Ryan & Son, Irwin, Icwa; J. H. Thuman, Cambridge, Neb.; T. K. Tomson & Sons, Dover, Kans.; George Bothwell, Nettleton, Mo.; Hanna & Co., Howard, Kans.; George Harding & Son, Waukesha, Wis.; E. B. Mitchel & Sons, Danvers, Ills.; N. P. Clarke, St. Cloud, Minn.; H. C. Duncan, Osborne, Mo.; C. S. & W. V. Nevins, Chiles, Kans.; M. B. Guthrie, Mexico, Mo.; C. Todd, Fayette, Mo.; T. J. Wornall & Son, Liberty, Mo.; H. R. Clay, Plattsburg, Mo.; G. E. Peace, Lake City, Mo.; C. D. Bellows, Marysville, Mo.; Earnest Funk, Greenfield, Iowa; N. H. Gentry, Sedalia, Mo.; Purdy Bros., Harris, Mo.; J. F. Stodder, Burden, Kans.; G. W. Wood, Winston, Mo.; Otto Gehlbach, Trenton, Mo.; D. K. Kellerman & Son, Mound City, Kans.; W. P. Harned, Vermont, Mo.; Powell Bros., Lees Summit, Mo.; Samuel W. Roberts, Pleasant Green, Mo.; J. R. Peak & Son, Winchester, Ills.; B. O. Cowan, New Point, Mo.

the various classes of Shorthorns were as follows: \$60, \$50, \$45, \$35, \$25, \$15, \$10, \$5. Bull, 3 years old or over, 9 entries; awards were as follows: First, Lavender Viscount, weight 2,300, C. E. Leonard; second, Young Abbotsburn, weight 2,650, T. J. Ryan & Son; third, Gallant Knight, weight 2,235, T. K. Tomson & Sons; fourth, The Lad For Me, weight 2,195, J. G. Robbins & Sons; fifth, Alice's Prince weight 2,656, G. M. Casey; sixth, Blythe Victor, weight 2,446, G. M. Casey; seventh, Young Dainty, weight 2,040, H. A. Barber; eighth, Admiral Victor, weight 2,445, G. M. Casey.

Bull, 2 years old and under 3, 6 entries.—First, Golden Victor, weight 2,112, Geo. Harding & Son; second, Inglewood, weight 1,935, Hanna & Co.; third, Black Watch, weight 1,855, Geo. Bothwell; fourth, Rosemond Victor, weight 1,920, Geo. Bothwell; fifth, Lavender Prince, weight 1,850, B. O. Cowan; sixth, Violet Prince, weight 1,715, Jno. Morris.

Bull, 1 year old and under 2, 15 entries, 10 shown.—First, Nonparell of Clover Blossom, weight 1,605, Geo. Bothwell; second, Valley Count, weight 1,555, T. J. Wornall & Son; third, Scottish Lavender, weight 1,450, G. M. Casey; fourth, Lodestone, weight 1,615, J. G. Robbins & Sons; fifth, Victor Abbot, weight 1,730, G. M. Casey; sixth, Barmpton Knight, weight 1,470, C. Todd; seventh, Ortiz Snowman, weight 1,005, M. B. Guthrie; eighth, Barmpton Prince 3d, weight 1,195, H. R. Clay.

Bull, 6 months old and under 1 year, 30 entries, 19 shown.—First, Prince of Tebo Lawn, weight 1,255, G. M. Casey; sixth, Barmpton Prince 3d, weight 1,150, C. D. Bellows; fifth, Nemo, weight 985, M. D. Change Lad, weight 1,045, Purdy Bros.; fourth, Hampton's Best, weight 1,196, C. D. Bellows; seventh, The Professor, weight 1,005, G. M. Casey; eighth, Daring Knight, weight 850, T. K. Tomson & Sons.

Bull calf, under 6 months old, 10 entries, 6 shown.—First, Ceremonius Archer, weight 500, G. M. Casey; sixth, King Abbatsburn, weight 565, G. M. Casey; order, 20 entries, 11 shown.—First, Rose Princess, weight 1,725, Geo. Hardin



sor; Wornall & Son's Valley Count; Bellows' Hampton's Best, and Parkdale Champton; Gentry's Nemo 24; Purdy Bros. Orange Lad; and Harding & Son's Core monius Archer. This prize of special; and was achieved the control of Clover Blossom. Senior sweepstakes cow.—Entries were made up of prize-winners in classes 6 and 7, and were Casey's Imp. Mayflower 5th and Princess; and Robbins & Son's Ruberta. In this class, Ruberta won the Kansas City Stock Yards' special of \$75.

Junior sweepstakes of \$75.

Junior developed the control of the control of the control of the prize-winners in classes is the classes \$8, 10, and 11. The entries were, Casey's My Hannah Lady; Harding & Son's Roberta Classes \$8, 9, 10, and 11. The entries were, Casey's My Hannah Lady; Harding & Son's Golden Fame's Belie; Purdy Bros'., Lovely 30th, and Orange Blossom of Fairview; and Robbins & Sons' Oneida, and Clarissa. Clarissa & Son's Clarissa & Clarissa &

SHORTHORN FAT STOCK.

Pure-bred steer, 2 years old and under 3.— Cumberland's Chunk, weight 1,790, was awarded the first prize of \$40 hest pure-bred steer of any age, owned by T. J. Ryan & Son, Irving, Iowa. He also showed the yearling steer, Blocky Dick, weight 1,140, and the steer under 1 year, Teddy, weight 995, and was awarded the first prize of \$40

on each.

In grade Shorthorn steers, 2 years old and under 3, G. M. Casey showed 4 animals as follows: Clinton, weight 1,660, first, \$40; George, weight 1,605, second, \$30; Howard, weight 1,600, third, \$20; Sam, weight 1,780, fourth \$10.

Rex, with his trophy held over his back, led the column. He was followed by other Herefords, they in turn by the Shorthorns and the Galloways completed the cavalcade. It was a noble sight and one that was thoroughly enjoyed by the crowd.

GALLOWAY EXHIBITORS.

O. H. Swigart, Champaign, Ill.; Aytch L. Perrin, Twyman, Mo.; C. N. Moody, London, Ohio; E. H. White, Estherville, Iowa; Geo. Kellam, Richland, Kans.; I. B. & A. M. Thompson, Nashua, Mo.; W. G. McCandless, Cottonwood Falls, Kans.; G. W. Lindsey, Red Cloud, Neb.; F. P. Wild, Ovid, Mo.; C. G. Comstock & Son, Albany, Mo.

GALLOWAY AWARDS.

GALLOWAY AWARDS.

The awards made in each of the Galloway classes for the four premium prizes were, first, \$30; second, \$25; third, \$20; and fourth, \$15.

The awards made in each of the Galloway classes for the four premium prizes were, first, \$30; second, \$25; third, \$20; and fourth, \$15.

In the aged bull class there were 6 entries, and the awards were as follows:
Bull, 3 years old or over.—First, Imp. Muscosus 3d, weight 1,835, E. H. White; second, Imp. Druid of Castlemlik, weight 2,060, O. H. Swigart; third, Bob of Sugar Bottom, weight 2,175, J. W. Byers; fourth, Imp. Woolfel, weight 1,690, C. N. Moody.
Bull, 2 years old and under 3, 5 shown.—First, Governor, weight, 1,565, E. H. White; second, Pride of Goodrich, weight 1,600, I. B. & A. M. Thompson; third, Chalmers of Highland, weight 1,475, E. H. White; fourth, Eagle of Red Cloud, weight 1,245, G. W. Lindsey.
Bull 1 year and under 2, 14 entries, 10 shown.—First, Brownie of Wavertree, weight 1,090, O. H. Swigart; second, Caleb Miller, weight 1,470, I. B. & A. M. Thompson; third, Max of White Farm, weight 1,025, E. H. White, Bull, under 1 year, 10 entries.—First, Badger of Massau, weight 1,195, I. B. & A. M. Thompson; second, Scotch Ladd, weight 910, E. H. White; third, Snyder of Nassau, weight, 1,100, I. B. & A. M. Thompson; fourth, Block, weight 1,425, E. H. White; second, Lady May, weight 1,675, O. H. Swigert; third, Highland Mary, weight 1,320, I. B. & A. M. Thompson; fourth, Highland Mary, weight 1,320, I. B. & A. M. Thompson; fourth Semiranius Crystal, weight 1,1220, O. H. Swigert; third, Velma of Nassau, weight 1,220, O. H. Swigert; third, Velma of Nassau, weight 1,220, O. H. Swigert: third, Velma of Nassau, weight 1,120, I. B. & A. M. Thompson; fourth Semiranius Crystal, weight 1,1220, O. H. Swigert: Hird, Velma of Nassau, weight 1,130, E. H. White; second, Lady Nannie 2d, weight 1,165, E. H. White; second, Semiranius Crystal, weight 1,120, E. H. White; fourth, Moll of Avondale, weight 1,130, C. N. Moody.

—First, Lutie Lake, weight 1,150, O. H. Swigert; second, Lady Nannie 2d, weight 1,165, E. H. White; second, Semiranius Crystal, weight 1,130, E. H. White; fourth, Moll of Avondale, weight 865, O. H.

Zo of Avondale, weight offs, O. H. Swigart.

Senior sweepstakes bull 2 years old or over—Swigart's Druid of Castlemilk; Perrin's Labri; Moody's Imp. Woolfel; Byers' Bob of Sugarbottom; White's Imp. Muscosus; and Kellam's Don of Dyke Creek were the contestants for this prize of \$55," which was won by White's Imp. Muscosus. Junior sweepstakes bull, under 2 years old.—Entries, Byers' Culfad of London; Thompson & Son's Badger of Nashua, and Snyder of Nashua; McCandless' Silver Tip, and Senator Mark; White's Scottish Lad; Moody's Much to See, and Block; and Swigert's Boyd, and Norman King. This prize of \$35 was won by Thompson & Son's Badger of Nashua.

Senior sweepstakes cow.—Entries made up from prize-winners in classes 2 years old or over.—The contestants were Thompson's Highland Mary; White's Gentle Anna, and Sadie Garland; and Swigert's Norma 3d. The cash prize of \$35 was won by White's Gentle Anna.

Junior sweepstakes cow.—Entries made up from prize-winners in classes under 2 years old. O. H. Swigert's Lutie's Lake; L. W. Moody's Semiramus Jackson; and E. H. White's Muscosus N. of White Farm, comprised the ring, and Swigert's Lutie's Lake; Leke carried off the honors, and the cash prize of \$35.

Exhibitors' herd, consisting of 1 bull, 2

rize of \$35. Exhibitors' herd, consisting of 1 bull, 2



follows: Clinton, weight 1,660, first, \$40; George, weight 1,600, third, \$20; Sam, weight 1,700, fourth \$10.

G. M. Casey, Shawnee Mound, Mo., also showed 15 head grade Shorthorn steers, 2 years old and under 3, average weight 1,600, third, \$20; Sam, weight 1,700, average weight 1,600, third, \$20; Sam, weight 1,700, and weight 1,600, third, \$20; Sam, weight 1,700, and the same of the special prize of \$500 offered by Strayhorn-Hutton-Evans Commission Co. The American Shorthorn Breeders' Association also duplicated this prize with another \$500. In addition to the \$1,000 prize of \$500 offered of Goodrich; C. N. Moody's, by Imp. Woolfel; G. W. Lindsey's, by Eagle of Red Could; and J. W. Byer's, by Eagle of Red Could; and J. W. Byer's, by Eagle of Red Could; and J. W. Byer's, by Eagle of Red Could; and J. W. Byer's, by Bob of Sugarmilk. The first prize of \$50 was awarded to E. H. White; second, of \$25, to I. B. & A. M. Thompson; and the fourth, of \$15, to C. Thompson; and the fourth, of \$15, to C. N. Moody. Breeder's young herd.—Young herds were entered Alice's Prince and a beavy of fat and famous cows. There was no cmpetition and he took the prize. After the award had been made for the string of steers, the secretary of the Shorthorn Association mounted rostrum and called for three cheers for Colonel Casey, who had given such a practical demonstration of the value of fine stock. The audience gave him an ovation with a will.

W. R. Nelson's special, \$100, for 5 animals, get of one bull, sire to be shown but not considered, was won by J. G. Robbins & Sons, Horace, Ind., (The Lad For Me).

After the last of the awards for the day had been made, there was a grand parade of the Shorthorn and Hereford prize-will and the fourth, of \$15, to I. B. & A. M. Thompson, and the third of \$20, to E. N. Moody's by Engle of Red Could, the fourth of \$10 to C. N. Moody and the fourth, of \$10 to C. N. Moody and the fourth, of \$10 to C. N. Moody and fourth of \$10 to C. N. Moody and fourth of \$10 to C. N. Moody and fourth of \$10 to C. N.

cow.—Entries, E. H. White's herd out of Little Sloux 2d; O. H. Swigert's, Norma of Avondale; C. N. Moody's, Susanna of of Mount Leonard; and I. B. & A. M. Thompson's Haydon of Berry. The first prize, of \$35, went to E. H. White; the second, of \$25, to O. H. Swigert; the third, of \$20, to C. N. Moody; and the fourth, of \$15, to I. B. & A. M. Thompson.

Grand sweepstakes, best bull of any age.—Entries, I. B. & A. M. Thompson's Badger of Nashua, Caleb Miller, and Pride of Goodrich; and E. H. White's Imp. Muscosus. The grand sweepstakes prize of \$50 was won by E. H. White's Muscosus.

Grand sweepstakes, best cow of any age.—Entries, O. H. Swigert's Lutie's Lake; E. N. Moody's Semiramus of Jackson; and E. H. White's Gentle Anna. The grand sweepstakes prize of \$50 was won by E. N. Moody's Semiramus of Jackson.

Steer, 2 years old or over.—Cash of Nashua being the only entry in this class, was awarded the first prize of \$25.

The American Royal Shorthorn Sale.

The American Royal Cattle Sale, the third of the series of 4 sales for the year 1901, under the management of the American Shorthorn Breeders' Association, was held at the Kansas City Stock Yards sale pavillion on October 23 and 24. The attendance was the largest ever seen at a Kansas City Shorthorn sale, and the enthusiasm manifest was in keeping with the crowd. The first day's average was \$367.38. The highest price realized at the sale was \$1,850 for the imported bull, Englewood 151200, consigned by Hannah & Co., of Howard, Kans., and sold to Forrest Bros. & Dunham, of Miles, Iowa. A Dakota breeder had sent in a bid of \$1,750, but the bids were so lively that his upset price was passed before Colonel Woods realized the fact. Hannah & Co. also received the second highest price for females in the sale of Scottish Princess, the yearling Collynie helfer, for \$560,' to Forrest Bros. & Dunham. The highest price realized in the sale for females was \$70, paid by Hanna & Co. for the yearling helfer, Secret Sonsie 3d, sired by All Scotch, consigned by Col. G. M. Casey.

The result of the 2 days' offering was very gratifying to the Shorthorn fraternity. Twelve buils sold for \$5,735, an average of \$478, and 38 cows and helfers sold for \$11,110, an average of \$3560.

The breeders having consignments in the sale were: Hanna & Co., Howard, Kans.; D. K. Kellerman, Mound City, Kans.; T. K. Tomson & Sons, Dover, Kans.; Col. G. M. Casey, Shawnee Mound, Mo.; N. P. Clarke, St. Cloud, Minn.; Geo. Bothwell, Nettleton, Mo.; H. A. Barber, Windsor, Mo.; H. R. & W. T. Clay, Plattsburg, Mo.; S. W. Roberts, Pleasant Green, Mo.; Chenault Todd, Fayette, Mo.; Powell Bros, Lees Summit, Mo.; S. P. Emmons, Mexico, Mo.; W. A. Forsythe, Pleasant Hill, Mo.; C. S. & W. V. Nevins, Chiles, Kans.; M. B. Guthrie, Mexico, Mo.; H. C. Duncan, Osborn, Mo.; W. A. Boland, Grass Lake, Mich.; C. E. Clarke, St. Cloud, Minn.; W. P. Harned, Vermont, Mo.; J. H. Thuman, Cambridge, Neb.; W. A. Forsythe, Green-wood, Mo.

The auctioneers who did the selling were Colo The American Royal Cattle Sale, the third of the series of 4 sales for the year

Harriman.
The sales in detail were as follows:

SHORTHORN BULLS SOLD.

Inglewood, owned by Hanna & Co., sold to Forrest Bros. & Dunham, of Niles, Iowa, for \$1,850.

The Professor, owned by G. M. G.

for \$1,850.

The Professor, owned by G. M. Casey, sold to Abe Renick, of Sycamore, Ky., for \$770.

Chief Cruickshank, owned by H. C. Duncan, sold to George Bothwell, of Nettleton, Mo., for \$200.

Golden Hero, owned by C. E. Clarke, sold to George Ward, of Hawarden, Iowa, for \$115.

\$115.

Barmpton Prince 3d, owned by H. R. Clay, sold to F. Divers, of Roswell, N. M., for \$260.

Winsome Wanderer 2d, owned by George Bothwell, sold to Dean Bros., of New-kirk, Okla., for \$305.

Ortiz Crescendo, owned by T. J. Wornall, sold to F. Divers, of Roswell, N. M., for \$265.

sold to F. Divers, of Roswell, N. M., for \$265.

Barmpton Knight 148795, owned by Chenault Todd, Fayette, Mo., sold to Alex. John, Bedford, Iowa, for \$400.

Rosemond Victor 26th 153675, owned by Geo. Bothwell, Nettleton, Mo., sold to F. Divers, for \$310.

Golden Leaf 157609, owned by N. P. Clarke, sold to W. E. Hunter, Mitchell, Kans., for \$255.

Scottish Pride 152754, owned by H. C. Duncan, sold to F. Divers, for \$805.

Ortiz Snowman 165468, owned by M. B. Guthrie, Mexico, Mo.; sold to Chas. C. Judy, Tululla, Ills, for \$200.

SHORTHORN COWS SOLD.

Secret Sonsie 3d, owned by G. M. Casey, sold to Hanna & Co., of Howard, Kans., for \$870.

Cherry Sweet Briar, owned by N. P. Clarke, sold to George E. Ward, of Hawarden, Iowa, for \$385.

Lyndale Queen 4th, owned by C. E.

warden, Iowa, for \$385.
Lyndale Queen 4th, owned by C. E. Clarke, sold to C. C. Bigler & Son, of Hartwick, Iowa, for \$330.

Waterloo Maid, owned by C. E. Clarke, sold to George E. Ward, of Hawarden, Iowa, for \$125.
Scottish Princess, owned by Hanna & Co., sold to Forrest Bros. & Dunham, of Miles, Iowa, for \$560.
Butterfly's Joy, owned by W. P. Harned, sold to Brown & Randolph, of Indianola, Iowa, for \$340.

Lavender Rose XVI., owned by D. K. Kellerman & Son, sold to Carrier & Son, of Newton, Iowa, for \$255.
Scotch Josephine VII, owned by D. K. Kellerman & Son, sold to C. A. Saunders, of Manila, Iowa, for \$155.
Second Airdrie Duchess of Clear Creek, owned by Ferda Roberts, sold to George Ward, of Hawarden, Iowa, for \$360.

Violet's Cup 2d, owned by S. P. Emmons, sold to Brown & Randolph, of Indianola, Iowa, for \$350.
Rose V. owned by W. T. Clay, sold to H. Campbell, of Trenton, Mo., for \$240.

Guthrie, sold to F. Divers, of Roswell, N.
M., for \$180.
Ortiz May Dell, owned by M. B. Guthrie, sold to Grover Walker, of Toxie, Kans., for \$115.
Lady II, owned by H. A. Barber, sold to Dean Bros., of Newkirk, Okla., for \$200.
Grand Rose 29th, owned by George Bothwell, sold to F. Divers, of Roswell, N. M., for \$140.
Mina Irene, with calf at side, owned by C. E. Clarke, sold to C. A. Saunders, of Manila, Iowa, for \$450.
Jenny Lind 29th, owned by N. P. Clarke, St. Cloud, Minn., sold to V. R. Ellis, Gardner, Kans., for \$235.
Josephine B. of Wildwood, owned by W. T. Clay, Plattsburg, Mo., sold to Hall Wood Stock Farm, Carthage, Mo., for \$275.
Nellie Maid Second, owned by W. T. Clay, sold to J. W. Smith, Allerton, Iowa, for \$355.
Glaster Maid, owned by D. K. Kellerman

Nellie Maid Second, owned by W. T. Clay, sold to J. W. Smith, Allerton, Iowa, for \$355.

Glaster Maid, owned by D. K. Kellerman & Sons, Mound City, Kans., sold to Dean Bros., Newkirk, Okla., for \$200.

Daisy Duchess of Kent, owned by J. H. Thuman, Cambridge, Neb., sold to Grover Walker, Oxshire, Kans., for \$245.

Walnut Duchess of Airdrie Fifth, owned by S. W. Roberts, Pleasant Green, Mo., sold to Grover Walker, for \$385.

Violet Fifth, owned by S. P. Emmons, Mexico, Mo., sold to F. Divers, Roswell, N. M., for \$390.

Lady Filbert Airdrie, owned by N. P. Clarke, sold to I. E. Novinger, Kirksville, Mo., for \$175.

Butterfly of Rose Sixth, owned by W. P. Harned, Vermont, Mo., sold to Brown & Randolph, Indianola, Iowa, for \$385.

Nellie Sharon Third, owned by W. A. Forsythe, Greenwood, Mo., sold to T. B. Babst, Dover, Kans., for \$250.

Longbranch Sybil 21st, owned by S. P. Emmons, sold to F. Divers, for \$280.

Maple Rose, owned by H. C. Duncan, Osborn, Mo., sold to Thos. Mitchell, Edina, Mo., for \$300.

Susan Elighth, owned by T. K. Tomson & Sons, Dover, Kans., sold to F. Divers, for \$475.

erly, Mo.; J. E. Logan, Kansas City, Mo.; Makin Bros., Lees Summit, Mo.; H. D. Martin, Shelbyville, Ky.; Miner Bros., Craig, Neb.; A. E. Metsker, Bond, Kans.; H. A. Naber, Wallula, Kans.; Wm. S. Powell, Moline, Kans.; T. H. Pugh, Carthage, Mo.; W. N. Rogers, McCook, Neb.; T. C. Sawyer, Lexington, Mo.; Scott & March, Belton, Mo.; C. B. Smith, Fayette, Mo.; Jno. Sparks, Reno. Nev.; C. A. Stannard, Emporia, Kans.; Stanton Breeding Farm Co., Madison, Neb.; Steele Bros., Belvoir, Kans.; Steward & Hutcheon, Greenwood, Mo.; W. T. Stovall, Jameson, Mo.; R. A. Templeton & Son, Tekamah, Neb.; Wm. Tibbles, Haddam, Kans.; F. H. Tuck, Houstonia, Mo.; W. B. Waddell, Lexington, Mo.; J. W. Wampler & Son, Brazilton, Kans.; J. T. Watson, New London, Mo.; H. B. Watts & Son, Fayette, Mo.; C. E. Yancey, Liberty, Mo.

HEREFORD BULLS SOLD.

King Dix 120832, owned by Steward & Hutcheon, Greenwood, Mo.; sold to Yatton & Co., Montego Springs, Mo., for \$325.

Monogram 91356, owned by James A. Funkhouser, Plattsburg, Mo.; sold to L. Winkler, Newman, Ill., for \$845.

Beau Donald 37th 109869, owned by H. D. Martin, Shelbyville, Ky.; sold to C. B. Slover, Hamburg, Iowa, for \$1,000.

Southington 111703, owned by K. B. Ar.

Southington 111703, owned by K. B. Ar mour estate, Kansas City, Mo.; sold to William Humphrey, Ashland, Neb., for

\$1,005.

Dale Duplicate 104458, owned by S. J. Jabbert, Dearborn, Mo.; sold to H. D. Anderson & Son, Kearney, Mo., for \$300.

Columbus 25th 100912, owned by Benton Gabbert, Dearborn, Mo.; sold to William Ernst, Graf, Neb., for \$500.

Shady 4th, owned by W. A. Colt, Manzanola, Col.; sold to L. Cowman, Lost Springs. Kans., for \$210.

Dandy Briton, owned by Walter B. Waddell; sold to Frank Petz, Ellinwood, Kans., for \$295.

Almont, owned by J. M. Curtice, Kansas

Almont, owned by J. M. Curtice, Kansas

Chester 7th, owned by J. H. Larson; sold to G. W. Fadley, Horton, Kans., for \$160. King of the Range, owned by Stanton B. F| Co.; sold to Thomas Taylor, Belvidere, kans., for \$230.

Bryan, owned by W. B. Jennings; sold to G. W. Jennings, Grain Valley, Mo., for \$140. HEREFORD COWS SOLD.

Cherry Grove 2d, owned by H. D. Adkinson, Napton, Mo.; sold to F. E. Graham, Powhattan, Kans., for \$430.
Pauline, owned by W. B. Jennings, Lee's Summit, Mo.; sold to John S. Anderson, Challao, Mo., for \$210.
Ethel, owned by J. A. Larson, Everest.

Ethel, owned by J. A. Larson, Everest, Kans.; sold to J. P. Larson, Powhattan, Kans., for \$230.

Kans.; sold to J. P. Larson, Powhattan, Kans., for \$230.

Lady Bloom, owned by Benton Gabbert; sold to Egger Hereford Cattle Company, Appleton City, Mo., for \$400.

Belle Donald 30th, owned by W. H. Curtice, Eminence (Ky.; sold to Van Natta & Son, Fowler, Ind., for \$250.

Rozelle, owned by A. E. Metsker; sold to J. D. Eads, Warrensburg, Mo., for \$130.

Miss Willington 5th, owned by Stanton Breeding Farm Company; sold to Mrs. C. S. Cross, Emporia, Kans., for \$500.

Etta, owned by Miss Lou Goodwin; sold to Marshall Field, Chicago, for \$350.

Lygia, owned by Cornish & Patton; sold to Fritz & Shay, Blakesburg, Iowa, for \$80.

Ernia 2d, owned by W. E. Waddell; sold to C. L. Bullard, Creston, Iowa, for \$855.

Effile, owned by E. H. Dancer; sold to Yatton & Co., for \$130.

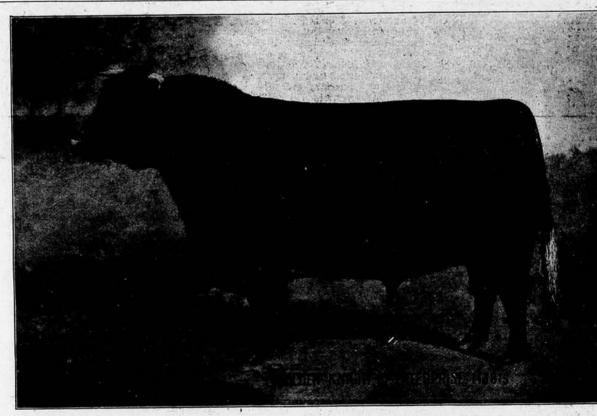
Fay 2d, owned by C. B. Smith; sold to T. F. B. Sotham, Chillicothe, Mo., for \$200.

Beauty, with calf at side, owned by W. S. Powell; sold to J. O. Lesueur, Lexington, Mo., for \$255.

Lady Peach 2d, owned by W. T. Stovall; sold to Fritz & Shay, for \$210.

Evangeline, owned by T. H. Pugh; sold to Theo. Heistand, Lieasant Hill, Mo., for \$200.

Miss Grove 2d, owned by H. S. Naber; sold to Marshall Field, for \$135.



Herd bull, a sire of prize-winners, included by Purdy Bros. in the joint sale with Dawdy & Co., at Kansas City, November 12 and 13, 1901.

Novette 3d, and calf, owned by Powell Bros., Lees Summit, Mo., sold to T. P. Babst, for \$350.

Beautyalia, owned by H. A. Barber, Windsor, Mo., sold to F. Divers, for \$155.

Longbranch Sybil 12th, owned by W. P. Harned, Vermont, Mo., sold to F. Divers for \$255.

Lavender Duchess 15th, owned by D. K. Kellerman & Son, sold to F. Divers for \$400.
Victoria Agatha, owned by S. P. Emmons, Mexico, Mo., sold to H. K. Givens, Fayette, Mo., for \$150.

Craggs Duchess of Airdrie 3th, owned by S. W. Roberts, Pleasant 4reen, Mo., sold to J. H. Johnson, Parkville, Mo., for \$130.

The American Royal Hereford Sale.

The Hereford sales on Tuesday, Wednesday, and Thursday, October 22-24, of 135 head, brought a general average of \$252.25, a little more than \$60 less average than last year; however, the result was satisfactory, generally speaking, to the consighers. The prices realized were neither fancy nor small, but a good healthy average was obtained. There were a larger proportion of \$200. Son sold to L. D. Duff & Son. Horton.

Secret Sonsie 3d, owned by G. M. Casey, sold to Hanna & Co., of Howard, Kans., for \$870.

Cherry Sweet Briar, owned by N. P. Clarke, sold to George E. Ward, of Hawarden, Iowa, for \$385.

Lyndale Queen 4th, owned by C. E. Clarke, sold to C. C. Bigler & Son, of Hartwick, Iowa, for \$330.

Waterloo Maid, owned by C. E. Clarke, sold to George E. Ward, of Hawarden, Iowa, for \$125.

Scottish Princess, owned by Hanna & Co., sold to Forrest Bros. & Dunham, of Miles, Iowa, for \$560.

Butterfly's Joy, owned by W. P. Harned, sold to Brown & Randolph, of Indianola, Iowa, for \$340.

Lavender Rose XVI., owned by D. K. Kellerman & Son, sold to Carrier & Son, of Newton, Iowa, for \$355.

Scotch Josephine VII, owned by D. K. Kellerman & Son, sold to C. A. Saunders, of Manila, Iowa, for \$355.

Scotch Josephine VII, owned by D. K. Kellerman & Son, sold to C. A. Saunders, of Manila, Iowa, for \$356.

Violet's Cup 2d, owned by S. P. Emmons, sold to Brown & Randolph, of Indianola, Iowa, for \$350.

Rose V. owned by W. T. Clay, sold to H. Campbell, of Trenton, Mo., for \$240.

Lorena, owned by T. K. Tomson & Sons, sold to George Woody, of Clyde, Iowa, for \$350.

Sweet Forest, with calf by side, owned by W. P. Harned, sold to George Ward, of Hawarden, Iowa, for \$256.

Eulala 6th, owned by Powell Bros., sold to Forest, with calf by side, owned by W. P. Harned, sold to George Ward, of Hawarden, Iowa, for \$256.

Eulala 6th, owned by Powell Bros., sold to Forest, W. P. Harned, sold to George Ward, of Hawarden, Iowa, for \$256.

Eulala 6th, owned by Powell Bros., sold to Forest, W. B. Jennings, Lees Summit, Mo.; J. M. Jones, Comiskey, Kans.; P. R. Jones, Comiskey

pler & Son; sold to Gage & Johnson, for \$125.

Armour Rue, owned by H. B. Watts & Son; sold to L. D. Duff & Son, Horton, Kans., for \$110.

Hubert, owned by T. C. Sawyer; sold to G. A. Mack, Hume, Mo., for \$175.

Beau Donald 37th, owned by H. D. Martin; sold to C. B. Stowe, Hamburg, Iowa, for \$1,000.

Marcus, owned by G. N. Dennis; sold to C. D. Leonard, Lyons, Kans., for \$135.

Wilton Grove, owned by Fred Esson; sold to William Ernst, for \$125.

Prince Hoy, owned by H. D. Atkisson; sold to Peter Heck, Tipton, Mo., for \$140.

Giant of Battle, owned by J. C. Andras, Jr.; sold to J. V. Stryker, Lewiston, Neb., for \$105.

Prince Rupert, owned by W. H. Curtice; sold to L. P. Duff & Son, for \$285.

Grove's Lilli 6th, owned by W. A. Colt; sold to S. W. Combest, Empire Prairie, Mo., for \$200.

Weston Stamp 21st, owned by Cornish & Patten, sold by J. J.

Weston Stamp 21st, owned by Cornish & Patton; sold by L. F. Hughes, Allerton, for

Patton; sold by L. F. Hugnes, Allerton, for \$230.

Kenswick, owned by J. E. Logan; sold to N. Kirtley, Savannah, Mo., for \$250.

Wilton Grove 2d, owned by J. W. Lenox; sold to C. E. Holderman, Welsh, I. T., for \$275.

Miss Wilton, owned by C. R. Hudspeth; sold to Theo. Heistand, for \$130.

Lura Rose, owned by E. H. Lewis; sold to W. S. White, Mulberry, Kans., for \$155.

Fashion 3d, owned by Minier Bros.; sold to C. A. Stannard, for \$205.

Weston Lass, owned by L. B. Chappell; sold to J. O. Lesueur, for \$195.

Weston Lass, owned by L. B. Chappell; sold to J. O. Lesueur, for \$195.

Lady Benfield, owned by C. A. Stannard; sold to Marshall Field, for \$340.

Plattsburg Maid, with calf at side, owned by Scott & March; sold to Marshall Fleau, for \$620.

Ranch Rose, owned by Cottrell Bros.; sold to J. M. Taylor, Huntsville; Mo., for \$140.

Bessie, owned by Cottrell Bros.; sold to Philip Closs, Loper, Kans., for \$345.

Eudora, owned by William Tibbles; sold to J. B. Dixon, Edgerton, Kans., for \$125.

Lady Elsie, owned by J. T. Watson; sold to J. M. Taylor, for \$100.

Dolores, owned by C. E. Yancey; sold to J. E. Worth, Clark, Mo., for \$250.

Annabel, owned by Z. T. Kinsell; sold to F. W. Van Natta, for \$220.

Metta, owned by W. J. Boney & Son; sold to G. A. Max, Hume, Mo., for \$210.

Gold Cup 3d, owned by O. Harls; sold to J. A. Funkhouser, for \$405.

Vera, owned by J. W. Lenox; sold to G. Ava 2d, owned by Harris Bros.; sold to Giltner Bros., Eminence, Ky., for \$235.

Florence H., with calf at side, owned by J. A. Larson; sold to J. A. Funkhouser, for \$675.

Lady Dollie, owned by R. A. Templeton & Son; sold to M. H. Hullag, Farmington.

J. A. Larson; sold to J. A. Funkhouser, for \$575.

Lady Dollie, owned by R. A. Templeton & Son; sold to M. H. Huling, Farmington, Kans., for \$220.

Emblem, owned by James A. Funkhouser; sold to S. J. Gabbert, for \$610.

Countess, owned by Miss Lou Goodwin, Glue Rapids, Kans.; sold to Stanton Breeding Farm Company, Madison, Neb., for \$310.

Bonnie, owned by P. R. Jones, Comiskey, Kans.; sold to C. A. Stannard, for \$200.

Maple Leaf, owned by Cornish & Patten, Osborn, Mo.; sold to O. Harris, for \$200.

Miss Steward 4th, owned by W. S. Powell, Moline, Kans.; sold to E. E. Wall, Seeton, Mo., for \$225.

Lady Matchless 5th, owned by C. A. Stannard; sold to Marshall Field, for \$250.

Gell, owned by Minier Bros., Craig, Mo.; sold to John L. Anderson, for \$250.

(Continued on page 936.)

(Continued on page 986.)

The Some Circle.

THE MOTHERS OF MEN.

The bravest battle that ever was fought! Shall I tell you where and when? On the maps of the world you will find it not— 'Twas fought by the mothers of men.

Nay, not with cannon or battle shot, With sword or nobler pen; Nay, not with eloquent words or thought, From mouths of wonderful men!

But deep in a walled-up woman's heart— Of a woman that would not yield, But bravely, silently, bore her part— Lo, there is that battle field!

No marshaling troop, no bivouac song, No banner to gleam and wave; But oh! these battles they last so long— From babyhood to the grave.

Yet, faithful still as a bridge of stars, She fights in her walled-up town— Fights on and on in the endless wars, Then, silent, unseen, goes down,

Oh, ye with banners and battle shot, And soldiers to shout and praise! I tell you the kingliest victories fought Were fought in these silent ways.

Oh, spotless woman in a world of shame, With splendid and silent scorn, Go back to God as white you came— The kingliest warrior born! -Joaquin Miller.

Men Who Have Helped the Farmer.

S. M. BABCOCK. (Born October 22, 1843.)

The yearly cost of supporting the experiment stations of the United States is about \$1,160,000. This is a large sum of money for the National and State governments to put into experimental work for agriculture. Does it pay? Doubtless many an intelligent farmer has been ready to question the wisdom of putting so much money into the hands of the "theorists" who control the experiment stations. Doubt-less many an intelligent merchant has characterized the appropriations made in support of these stations as "a sop to the farmers," a waste of public funds. Are the experiment stations a profitable investment? The question is pertinent.
Perhaps every experiment station is

not profitable as a purely financial venture; that is, it is not probable that every one of them can justify its existence by referring to specific savings or gains which it has brought about. But the stations as a whole are one of the most profitable of our public investments. They have more than paid interest on the money spent. In-deed, they may be said to pay the principal back every year at the cost of the interest. But the truth of this state ment is not so easily proved.

It has been estimated—no doubt with substantial accuracy—that the Babcock milk test effects a saving of 5 per cent of the butter-fat of all the milk and cream handled by all the creameries. On the creamery output of Wisconsin alone this rate of saving would amount to more than half a million dollars a year. And the president of the Elgin year. And the president of the Elgin Creamery Company, in a statement made before a committee of the Wisconsin Legislature, estimated that the Babcock test "saves to the creameries of Wisconsin \$1,200,000 annually"—a sum greater than the cost of maintaining all of the experiment stations in the United States. The Wisconsin sta-tion is the birthplace of the Babcock

What is this Babcock test? Merely a very simple, inexpensive, and almost absolutely accurate method of determining the percentage of butter fat in milk or cream. In fact, it is a chemical analysis which any intelligent boy of twelve years can learn to make in three days, and he can make the test in ten minutes at a cost of about 2 cents. Using the old methods of analysis, a chemist would have to spend two days to reach the same result. The test involves the use of a tester, which is very eastly operated and understood. A sample (about two-thirds of an (about two-thirds of an A sample (about two-thirds of an ounce), of the milk to be tested is poured into a test bottle large enough to hold 2 ounces of milk. The neck of the bottle is graduated to a fraction of 1 per cent. Into this bottle is next poured concentrated sulphuric acid about equal in amount to the milk. The two liquids are thoroughly mixed, and the bottle is placed in the tester—a centrifugal machine arranged to hold from 2 to 32 bottles. This machine is rapidly revolved for four minutes, after which boiling water is poured into the bottles, which are again whirled for about a minute. When the machine stops the butter-fat is found in the neck of the bottle, and the exact percentage of fat can be read from the scale.

The test and the tester were devised by Dr. S. M. Babcock, chemist of the

Wisconsin Experiment Station. The method and the machine were patentable, and the inventor might have been immensely rich by securing patents and retaining control of the process. He chose to give it to the world without condition. The action was characteris-tic of the man. He was an investigator, a chemist employed by the State to give his time and skill to the study of the problems of agriculture. His fine sense of honor saved him from becoming wealthy at the cost of the high professional standard he had set for himself. Shall the servant of the public traffic in the discoveries which the State has enabled him to make? Dr. Babcock's action says no. It says in effect that the man whose services are paid for by the State has no private right in the discoveries which he makes while in such service. Should he happen to work for years without positive results, will the station worker refund the salary he has drawn? He will not; for the condition of his employment is that he shall devote his time and abil-ity to the service of the public whether it is immediately profitable or not. The wonder is that so few persons have seen the true meaning of Dr. Babcock's action. He did not merely throw away the opportunity to acquire a princely fortune. He saved his high character as an unselfish servant of his State and earned the profound respect of every man and woman who so appreciate so noble a spurning of so subtle a tempta-

Stephen Moulton Babcock, professor of agricultural chemistry in the agricultural college and chief chemist of the Agricultural Experiment Station, University of Wisconsin, is a native of Bridgewater, New York. He received a liberal education, and afterwards was a student of chemistry for three or four years in Cornell University; then taught chemistry a year or two; and, finally, he finished his preliminary training by continuing his chemical studies at Goettingen, Germany, taking his Ph. D. degree in 1879. Again he became instructor in Cornell, but in 1882 was made chemist of the New York State Experiment Station at Geneva, where he remained until 1888, when he received a similar appointment in Wisconsin. His severe training was not wasted. As a teacher and investigator he had paid his way before he devised the famous Babcock test.

One of Professor Babcock's early inventions was a viscometer. In 1883 he devised a gravimeteric method of analyzing milk, in 1885 a method of determining the number and size of the fat globules in milk. Each of these methods is standard. As early as 1875 he began investigations on the ripening of cheese. The Babcock milk test was perfected in 1890. In 1897 he announced the discovery by Dr. H. L. Russell and himself of galactase, a digestive fer-ment contained in milk, which "breaks down" and makes digestible the casein of cheese. It is hardly possible to foresee the results of this discovery. means, no doubt, the adoption of new methods in the curing and ripening of cheese, resulting in a more wholesome, more digestible, and more attractive product.

Fortunately, Dr. Babcock's work is appreciated by the people of his own State. The Wisconsin Legislature in 1899 made an appropriation to provide a suitable medal in honor of his work. On March 27, 1901, this magnificent bronze medal was presented to Profes-sor Babcock at a joint session of the Senate and Assembly presided over by Governor La Follette. The medal is inscribed to Professor Stephen Moulton Babcock in recognition of the value of his discoveries and inventions and "unselfish dedication" of them to the public service. Who shall say that that bronze medal and the appreciation of his services by the people of Wisconsin are not worth more to the high-souled

Some Coffees are Glazed with a cheap coating. If glazing helps coffee

why aren't the high-priced Mochas and Javas glazed also?

is not glazed. It is perfectly pure and has a

delicious flavor. The sealed package insures uniform quality and freshness.

chemist than all the millions he might have received for his inventions?

Denver, Col. D. W. Working.

How High Can We Climb?

If you thirst for something really new, if you want to do something which has never been done before, here is a chance for you. Climb Mount Everest. Its height is 29,002 feet, and you will not find anything in the nature of a paper bag on its snow-capped summit, for the excursionist has not reached there vet.

The highest point to which man has so far climbed is 23,393 feet. This is the height of Aconcagua, the loftiest summit of the main cordillera of the Andes. This point was reached by the guide, Mattias Zurbriggen and Mr. Vines, two members of the expedition that went out in 1897 under Mr. E. A. Fitzgerald. Before this the record was by Sir William Martin Conway's expedition, which in 1892 climbed a mountain in the Karakoram Himalayas

just on 22,600 feet high.

Man having ascended to a height of 23,393 feet, the question to be now considered is whether he will ever be able

to reach 29,000 feet.

We live at the bottom of an ocean of air, and our bodies are specially adapted for life at low levels; consequently, when we are placed in unusual conditions such as exist at great heights, we are affected in various ways. Respiration becomes difficult, the circulation of the blood is altered, the heart is fatigued, "mountain sickness" is experienced legistrate and exhaustion follows: enced, lassitude and exhaustion follow.

In spite of all this (says a writer in the October Pearson's) it is the opinion of all those who have given the subject careful consideration that the ascent of Mount Everest is possible.

As a witness we shall call Signor Angelo Mosso, one of the greatest authorities on human physiology, who has devoted years of research to the effects of high altitudes on the human frame, and who has been instrumental in se-curing the erection of a new observatory and Alpine station on Monte Rosa for the special study of the life of man

on the high Alps.
Signor Mosso's evidence is summed up in his remark: "I am convinced that man may reach the summit of Everest without serious sufferings.

Even this does not seem to presage a pleasure trip, but then the ambitious climber must be prepared for discomfort and difficulty.

The reason, Signor Mosso tells us, why so few have attempted the ascent of the highest peaks on the face of the earth, is the conviction that man can not withstand the rarefied air of these altitudes. "Heroism shrinks from such prolonged sufferings as those due to lack of health."

His own experiments and observations, however, give us the assurance that man will be able slowly to accustom himself to the diminished barometric pressure of the Himalayas. "If birds," he says, "fly to the height of 29,000 feet, man ought to be able to reach the same altitude at a slow rate of prog-

The Fabian policy-festina lenteseems to be Signor Mosso's maxim for the mountain climber. An individual would have to be found who would acclimatize himself during a slow rate of progress, in order to reach the top in conditions of health and strength. His victualling arrangements must be generously but prudently made, more especially as the last stages would have to be performed very slowly.

Mountain expeditions have hitherto been proved to adopt too rapid a rate of ascent. The nervous system consequently has not time to accustom it self to the action of the rarefied air, nor the organisms to the cold; the fatigue of the ascent consumes the strength of the climber, and leaves him no time to regain it.

On this subject Sir Martin Conway observes: "On the two occasions when I have been at 23,000 feet, I have felt that I could have climben further, and that if I could have slept there, I might have climbed much further. The problem of climbing Mount Everest will be conflicted by two main difficulties—politics and finance. If the Government of India would persuade the Government of Nepal to let the Alpine Club try, and if about \$50,000 were forthcoming, and a good party, with an ample supply of porters, could devote two or three consecutive years to the attempt, there would be some chance of conquering the peak."-Pearson's Magazine.

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makes the pans and kettles clean and bright. It does the work much better than soap and in much less time.

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Needed in Every Home.

I do not know how I could help a young mother and house-wife more than to tell her of needful remedies to use in times of emergencies, and accidents. I have seen such pitiful cases of consternation and alarm from such mothers when a child came in badly hurt, and nothing could be found to give them relief. It is well to fortify yourself with every simple helpful need, and you find ones life may be saved by having prompt remedies, and to be able to act at once. I will give a list of helpful home remedies, and it is best to have a medicine chest filled, and a measuring glass for medicines. Have the fol-lowing for accidents: Soft linen rags, sticking plaster, mustard leaves, poultice bags, linseed oil, a bottle of lime water, arnica, camphor, witch hazel vaseline, a box of safety pins, scraped lint, and a box of powdered borax.

As prompt action in cases of accidents will frequently save life, it is very important to have some knowledge of the best methods of treatment. The first thing to do in case of accidental poisoning, is to produce something so as to eject the poison from the stomach. Mustard and salt water with a little powdered borax added may be given. For poison from lead or mushroon, use vinegar and oil freely.

For cases where the cause is not known, it will be found safe to give

emetic, followed by a stimulant in sweet milk. For plant poison, or external, such as

poison ink, use a strong solution of borax water to bathe the effected parts. It is excellent, it will heal and cool at once.

Where Wives are Whipped.

In Russia wives are very much in subjection to their husbands. In a circulated book written by the Russian priest, Pope Sylvester, who lived in the 16th century, corporal punishment is advocated not only on account of its religious propriety, but also as of benefit to their health.

What the women may think of it is another matter, but certainly the Russian branch of the Greek church seems to believe that if you spare the rod you spoil the wife. Until recent years a rod or whip has formed part of a bride's trousseau, and in some districts her first wifely duty was to humbly remove her husband's boots, in one of which she found a whip.

A custom which obtained in other parts of the country was for the bride-groom to give the bride a light blow as he took her from her father's house, saying: "Now "Now you must forget the amily those of mine."-Stray Stories.

No Soul for Music.

Tenderly, dreamily, soulfully, the maiden at the piano had sung "When the Swallows Homeward Fly," and a hush still pervaded the company.

It was broken by Fweddy.
"By the way, Miss Purdy," he said, "I ask for information. When do the swallows homeward fly?"
She flashed an indignant glance at

him, but made no reply.

The reason for this, however, according to a statement subsequently made by one of Miss Purdy's dearest friends, was that she didn't know.—Chicago Tribune.

The Dangerous Kind.

Harold—I think she would accept me

if I should propose.

Rupert—Oh, then, you're safe enough. It's the kind of girls that accept a chap whether he proposes or not that

gives one the rattles.-Puck.

The Houng Folks.

WEARYING FOR YOU.

Jest a-wearin' for you,
All the time a-feeling blue;
Wishin' for you, wonderin' when
You'll be comin' home agen;
Restless, don't know what to do,
Jest a'wearyin' for you.

Keep a-mopin' day by day; Dull, in everybody's way. Folks they smile and pass along Wonderin' what on earth is wrong; 'Twouldn't help 'em if they knew, Jest a'wearyin' for you.

Room's so lonesome, with your chair Empty by the fireplace there; Just can't stand the sight of it; Go outdoors and roam a bit, But the woods is lonesome too; Jest a'wearyin' for you.

Comes the wind with soft caress Like the rustlin' of your dress; Blossoms fallin' to the ground Softly like your footsteps sound; Violets like your eyes so blue, Jest a wearyin' for you.

Mornin' comes; the birds awake (Used to sing so for your sake), But there's sadness in the notes That comes thrillin' from their throats, Seems to feel your absence, too, Jest a'wearyin' for you.

Evenin' falls;; I miss you more
When the dark gloom's in the door;
Seems jest like you orter be
There to open it for me!
Latch goes tinklin', thrills me through,
Sets me wearyin' for you.

Jest a-wearyin' for you!
All the time a-feelin' blue!
Wishin' for you, wonderin' when
You'll be comin' home agen.
Restless, don't know what to do,
Jest a'wearyin' for you.

-F. L. Stanton.

The Great Shower of Shooting Stars.

Y. MACBENNETT, LONG ISLAND CITY, IN SCIENTIFIC AMERICAN.

display, wonderful This startled the northern hemisphere in the month of November of the years 1799, 1833, and 1867, was announced by some English astronomers as due to reappear in November, 1899. But the watchers were disappointed; and the cause assigned for this disappointment was that the swarm of meteors from which the shower falls had been either diverted from its usual source, or had been wholly scattered by the influence of some of the large planets. The probability is, however, that we shall behold this grand display again, about November 15. 1901. One of our leading astronomical publications, referring to this subject, uses the following language:

"Some astronomers have expressed opinions with more or less assurance tnat the path of the Leonid streams of meteors has been so changed that we may no longer hope for such grand showers as were seen in 1866, and notably in 1833. Although no remarkable shower is reported as seen anywhere in 1900, it is evident that the stream of Leonids has not been diverted from its former course far enough to miss the earth; considerable numbers of the Leonids having been seen at various points on the night of November 15,

HOW THE MISTAKE AROSE.

The explanation of the mistaken prediction is to be found in the hasty and careless examination made of the records of past appearances of these meteors, and which ended in the deduction of a period of thirty-three and a quarter years. Professor McCune, of Philadelphia, however, with Professor Herrick, of Yale, and a few others correctly estimated the period in 1867, putting it at thirty-four years and one day, or to be more accurate, 12,419 days. Thus, the first recorded shower was witnessed on first recorded shower was witnessed on the night of November 11-12, 1799; the next on that of November 12-13, 1833; the following one accurate, 12,419 days. Thus, the following one accurate and the same and thus of the same and thus days are the same and the same are the same and the same are the same and the same are the sa the following one occurring on November 13-14, 1867; so that the next becomes due on the night of November 14-15, 1901-in a few weeks hence.

THE CORRECT PERIOD OF THE METEORS.

It has been found that this stream of meteors takes three years to pass the point where the earth meets it in each November of those three years to plunge through it in five or six hours. The first year of these encounters the head of the stream is met, where the swarm is thin and the display consequently not so great as that of the second year when the earth goes through the dense portion, to be followed in the third year by a still lighter shower. The records show that the displays of the first year have been visible in the Eastern Hemisphere, but not on this continent, whereas the reverse has been the snowfall footed up for this vicinity case with those of the second years— about 36.4 inches, or about 6 inches or the great showers, so called. As the display of the first year 1866 series months during a period of thirty-two mas quite brilliant—seen only, however, years. The extraordinary phenomena in the Old World—the thirty-three years noted this year are precisely those particular round-up. Theodore Roose-

BIGGER BOX SAME PRICE THE MODERN STOVE POLISH Brilliant, Clean, Easily Applied, Absolutely **Odorless** LIQUID-BETTER YET! FIRE PROOF!

that had elapsed from the grand shower of 1833 seem to have been taken as the period of return; and this no doubt led to the mistaken prediction which assigned 1899 for the reappearance of this magnificent sight. But the shower of 1867 was by far the grandest of that time, or rather series. And reckoning from the previous corresponding display, 1833, the period was exactly thirty-four years and one day, as stated already. The same reckoning holds good in the preceding cases.

EFFECTS ON THE TEMPERATURE.

A notable circumstance in connection with the visits of the Leonid meteors is that the weather of the Northern Hemisphere has experienced remarkable vicissitudes at each of the recurring periods. The sudden and violent change in the temperature (observed in 1799 by United States Commissioner Ellicott, off the coast of Florida) was noted again in 1833, the thermometer having run down 20° in this vicinity (at other points as much as 30°) from a few hours before the appearance of the meteors until sunrise of the 13th of November. And the fall in the temperature continued until the 21st, at which time the daily mean had fallen from 54° on the 12th to 27°. A similar perturbation occurred in 1867; and if a rapid decline should occur within a few hours after sunset on the evening of November 14 next it will probably indicate the close proximity of the earth to the approaching meteoric swarm.

DISTURBANCE AS TO RAINS,

So, too, the rainy character of those years is remarkable. No records on this score are obtainable for 1799. But in 1833, in this vicinity generally, the rainfall was in excess of from 4 to 7 inches above the mean of a quarter-cen-The summer of 1867 was noted for its heavy, incessant rains; there fell in the month of June 10.33 inches, and in July 6 inches, or an aggregate for the first seven months of the year of 30.05 inches—the annual average being about 43 inches. The month of August was an unusually rainy one, a single downpour in the middle of that month having lasted forty-two hours, with but a few hours of abatement. September and October were pleasant, but November and December, with their rain and snow, carried the year's record to about of season and other phenomena of an extraordinary character. In the first week of November great tornadoes occurred in the West Indies, violent gales on our Great Lakes, and a remarkable thunderstorm in Montreal; while in this vicinity the thermometer dropped, on the morning of the 7th, to 30° and immediately began to run up again until it reached 57° shortly after midnight. On November 11 the day at Washington, D. C., was unusually warm, ending in a violent thunderstorm at night, followed immediately by a very high and cold wind and at noon a fall of snow.

THIS SEASON HAS THE INDICATIONS.

The present year, 1901, has been just such a rainy one as those which have heretofore marked the Leonid periods At the end of last August the rain and more than the average of the first eight

which characterized the previous periodical years. So that there seems suf-ficient reason to look forward with confidence to a reappearance of the great Leonid shower this fall. A remarkable circumstance was noted at Kinderhook, N. Y., on the 11th of November, 1833, two days before the great shower. Phosphorescent lights were seen on the tops of sticks, posts, and other pointed objects, some of those lights being as large as the flame of a candle, and having a dim white light pointing upward. At the same time the atmosphere appeared unusually red. This and many other phenomena that especially characterized the periodic years lead not unreasonably to the conjecture that the passage of meteoric swarms and of comets, either close to or into the earth's orbit, affects seriously the atmosphere, the temperature, and the weather of our planet.

Fortune Telling With Dominos.

For an evening's amusement fortunetelling has long been in favor. We have, however, grown tired of cards, tea leaves, and palmistry, and with the approach of the social and "sociable" season, long for something along similar lines, yet possessing the charm of novelty. Dominos will, this winter, sup-ply the proper medium for fortune-telling, but they must never be consulted

on either Monday or Friday.

The room in which the future is to be tested should be of inky darkness, with a half dozen or more white lights set in the form of double-three dominos; and a gown of black and white "polka-dot" forms an appropriate costume for the revealer of destinies."

The dominos should rest face downon

a smooth table of white marble or oil-cloth. When the future is to be consulted, the inquirer seats himself at the table, shuffles the dominos, and from them draws five dominos. From these the seer must concoct a "revelation" of sufficient detail and length. As an aid the following rule is given:

Double-six denotes receipt of money will be very rich.

Six-five denotes amusement and success.

Six-four denotes early marriage and much happiness.

Six-three denotes constancy and affection.

Six-two denotes orderly, economical, and industrious.

Six-one denotes will marry twice, rich in old age.

Six-blank denotes will learn of death

of a dear friend. Double-five denotes will be very lucky in everything.

Five-four denotes will marry poor.

Five-three denotes ample means and eventual wealth. Five-two denotes unfortunate love af-

Five-one denotes an invitation to an

enjoyable affair. Five-blank denotes avoid gambling

and games of chance.

Double-four denotes lucky to lovers, farmers, and laborers. Four-three denotes neither riches nor

Four-two denotes a change in your circumstances. Four-one denotes you will be childless

Four-blank denotes quarrels and sepa

rations, never marry.

Double-three denotes immense riches.

Three-two denotes fortunate in love, marriage, and business.

Three-one denotes not favorable. Three-blank denotes your sweetheart

Double-two denotes thrifty and suc-

cessful, moderately rich. Two-one denotes a life of luxury, but friend.

never marry.

luck. Double-ace denotes constancy in love

and marriage. Ace-blank denotes travel in great lux-

Double-blank denotes selfish, miserly, and heartless.-What To Eat.

Roosevelt and the Bully.

Out West, in Montana, at a big roundup, the "bad man," who always is present on such occasions, was known as "Long Ike." He had the reputation of being quick with his forefinger on the trigger and able to "whip his weight in wildcats" on account of his great muscular strength. He imposed upon people so long that he gradually got to believe in his own courage—for, in reality, he was as arrant a coward as ever passed himself off as a brave man. One of his favorite tricks was to line up alongside a drinking bar, select the

DISEASED **KIDNEYS** Cause more deaths than bullets. Their symptoms are not alarming, hence they are neglected and quickly become dangerous. **Prickly** Ash **Bitters**

Is a kidney medicine of great value; it strengthens the kidneys, allays inflammation, eases backache and arrests the progress of the disease. It is an honest remedy that can be depended on.

AT ALL DRUGGISTS, PRICE, \$1.00.

velt happened to be one of the party in the only place of shelter on the prairie—the saloon. A glass half filled with whisky had been placed in front of him. "Long Ike" reached out and took it, and so certain was he that the stranger would submit that he did not take the

precaution to make his customary bluff with his revolver. Before he could swallow the liquor Mr. Roosevelt was on him like a catamount. An expert wrestler, he threw the bully in a jiffy. Then he turned him over and stood him up and ran out of doors, taking the revolver away from him in the run. Ike was thrown again, harder than before, and could not get up for five minutes. When not get up for five minutes. When he did he was dazed and wondering. The style of attack was so quick, so unusual, and so vigorous that he was afraid to resent it in the "bad man" way, even had he possessed the nerve and his shooting iron. He sneaked out

of camp.

The young man with the eyeglasses and the gleaming teeth enjoyed the respect of action as well as words, but whose words mean action, for he is a man who says what he means and means what he says; who acts according to his words, who is as fearless as he is tireless, as strong as he is fear-less, as gentle as he is strong, and as flerce as he is gentle when fight is called for-the relentless foe in battle, the generous conqueror when the battle has been fought.—Atlanta Journal.

Appreciated.

"How are you getting on with your new stenographer?" asked the business

"First rate," answered Mr Cumrox.

"Is she accurate?"

"I should say not. If she was accurate, I'd discharge her to-morrow. She simply gets the sense of what I want to say and then expresses it grammatical."-Washington Star.

Her Singing.

Daisy-What do you think? Clarice went out and sang at an entertainment in a private insane asylum.

Edie-Did she say whether they showed their insanity much?

Daisy-Oh, yes; they encored her three times.-Tid-Bits.

SEVEN

Chillicothe Normal School Chillicothe Commercial College Chillicothe Shorthand College Chillicothe Telegraphy College Chillicothe Pen-Art College Chillicothe School of Oratory Chillicothe Musical Conservatory

Last year's enrollment 729. \$130 pays for 48 week's board, tuition, room rent, and use of text-books. For FREE Illustrated Catalogue, address ALLEN MOORE, President, Box O, CHILLICOTHE, MO

KANSAS FARMER.

Established in 1863.

Published every Thursday by the KANSAS FARMER CO., -- TOPEKA, KANSAS

SUBSCRIPTION PRICE: \$1.00 A YEAR.



ADVERTISING RATES.

ADVERTISING RATES.

Display advertising, 15 cents per line, agate (fourteen lines to the inch).

Special reading notices, 25 cents per line.

Business cards or miscellaneous advertisements will be received from reliable advertisers at the rate of \$5.00 per agate line for one year.

Annual cards in the Breeders' Directory, consisting of four lines or less, for \$16.00 per year. including a copy of the Kansas Farmer free.

Electros must have metal base.
Objectionable advertisements or orders from unreliable advertisers, when such is known to be the case, will not be accepted at any price.

To insure prompt publication of an advertisement, send cash with the order; however, monthly or quarterly payments may be arranged by parties who are well known to the publishers, or when acceptable references are given.

All advertising intended for the current week should reach this office not later than Monday.

Every advertiser will receive a copy of the paper free, during the publication of the advertisement.

Address all orders:

KANSAS FARMER CO.

KANSAS FARMER CO. 116 West Sixth Ave., Topeka, Kans.

BLOCKS OF TWO.

The regular subscription price for the KANSAS FARMER is one dollar a year. That it is worth the money is attested by the fact that thousands have for many years been paying the price and found it profitable. But the publishers have determined to make it possible to secure the paper at half price. While the subscription price will remain at one dollar a year, every old subscriber is authorized to send his own renewal for one year and one new subscription for one year with one dollar to pay for both. In like manner two new subscribers wil be entered both for one year for one dollar. Address, Kansas Farmer Company, Topeka, Kans.

The next meeting of the Shawnee County Horticultural Society will be held at the rooms of the State society in the State House. The program will be as follows: "Cherries and Their Culture," J. F. Cecil; "A Plea for Better Training in the Rural Schools," Prof. F. E. Kutz; "Beneficial Insects and How to Know Them," Eugene G. Smythe.

Every loyal Kansan has now a real grievance. It used to be the fashion to attribute to Kansas everything superlative. But now comes one Earl W. Mayo and prints a piece in Ainslee's Magazine in which he describes and illustrates several destructive cyclones and not one of them in Kansas. Such a slight is not to be lightly passed over, Of what account is our 100,000,000 bushel wheat crop, the largest and best ever produced in any State, if we can't stand up with old Massachusetts, with Illi-nois, Missouri, and Texas in the cyclone

Arizona Experiment Station sends out occasional slips headed "Timely Hints for Farmers." The latest of these slips is especially valuable to farmers who irrigate with the muddy waters of the Arizona streams. Appended to this Hackney, Kans. R. William "To the Reader: slip is the following: "To the Reader: Particular care is taken to have these Timely Hints' of practical value, and to have them appear when most useful to farmers. If you are interested in some special subject, which you would like looked into, let us know and we may find time to do so. Address, The Experiment Station, Tucson, Arizona."

The Kansas Farmer Company is pleased to announce that it has engaged Prof. I. D. Graham for the position of associate editor. His work will be both in the office and in the field. His extensive acquaintance, his knowledge of live stock and farming, his energy and business capacity, and his experience with men and affairs fit him peculiarly for the field. Professor Graham was for many years secretary of the Kansas State Agricultural College. He resigned this position several years ago at the earnest solicitation of his wife, whose regard for his health was the moving cause. He has recently

been connected with the business department of the Topeka Daily Capital, which work he resigned to accept the position on the Kansas Farmer. That his work on this paper will be appreciated by the readers and business patrons is a foregone conclusion.

THE AMERICAN ROYAL SHOW AND SALE AT KANSAS CITY LAST WEEK.

Nothing more surely marks the extension of improved stock interests than the success of such shows and sales as were held at Kansas City last week The advance from the reign of scrub stock to pure-bred was centered in Kentucky some years ago. Later the appreciation of the best spread to Ohio and to Illinois. Iowa and Missouri are now storm centers of this interest. The conquest is on in Kansas, Nebraska, Oklahoma, Texas, and generally in the regions of the plains and mountains. Realization of the importance of exhibit iting their successes to those who are creating herds of pure-bred animals in this land of conquest brought to the Kansas City show the best from the herds of the entire country. The growing interest in the event, which may now be considered as having a perma nent place on the calendar, speaks well tor the insight of the breeders who participated.

The promoters of the show and sale will have little trouble in the future to induce breeders to bring both their reserves and their offerings. Beginning as a show and sale of Herefords, it next included Herefords and Shorthorns. This year it was Herefords, Shorthorns, Galloways, and Angora goats. Hereafter it will probably be impossible as well as undesirable to exclude any breed of pure-bred cattle, horses, hogs, sheep, or

goats. Kansas City is peculiarly well located for such exhibition and sale. On the border between the country which is well supplied with the best and the great country in which superior herds exist in sufficient numbers to serve as object lessons to the thousands of farmers whose animals need improving with the best blood, the seller and the buyer here meet on middle ground to their mutual advantage.

An interesting feature of the show was the displacement of old prize-winners by younger candidates. The man who thinks that improvement has come to an end in perfection has his awaken ing when he sees the present generation of animals supplant their elders in the show ring. The principles of improvement by breeding, feeding, and care were never so well understood as now. So, too, the increased profits of improved animals over common stock are so apparent that the man who would prosper is compelled to continually add to his expenditures for improved blood. This fact suggests the perpetuity of the occupation of the professional improver by breeding. The show and sale then must increase in magnitude and importance and in educational value alike to the professional breeder, the amateur, and the producer of animals for utility. The improved stock business is yet in

its early stages.

The full details of the great show and sale of last week will be found elsewhere in this paper.

ALFALFA AND SHEEP.

EDITOR KANSAS FARMER:-I should like to ask in your paper (1) whether alfalfa—both the green and the cured is good for sheep feed; (2) are sheep likely to be bloated by it; (3) will the alfalfa stand their close cropping; (4) would you advise sowing an old field to alfalfa and keeping sheep thereon to

Hackney, Kans. R. WILLIAMS. Alfalfa is admirable sheep It contains the digestible nutrients needed in the production of both the flesn and the wool. Ewes bred on alfalfa are reported to produce more than the average number of lambs.

(2) Dry alfalfa hay never bloats an-Alfalfa is excellent pasture for imals. sheep, but care is necessary to prevent bloating while they are becoming accustomed to it. A good plan is to feed the sheep well on alfalfa hay for a few days before they go into the alfalfa pasture Before they are turned in they should be completely satisfied with some feed that they like. Do not turn them in when there is dew on the alfalfa. When the proper precautions are not taken severe bloating and loss are to be ex-

(3) Alfalfa is not adapted to continuous close cropping. Do not try to keep it pastured down. It is well to have at least two pastures to be used alternately and mowed two to four times during the season. A good deal of hay Missouri; E. H. White, Iowa; N. P. Herman Avery, of Henry Avery & Son,

may be put up in this way and injury to the stand avoided.

(4) By all means sow the old field to alfalfa. If it is very poor, a dressing of stable manure will be a great advantage in giving the alfalfa a good start. Un-less there are brush or briars in the field pasturing will not be needed to ren-ovate the field. If disked two or three times each season the alfalfa will drive out crab-grass and every other weed and will give brush and briars a fight for their lives. But both sheep and alfalfa are good renovators and when used together the land should improve rapidly.

THE BALANCE OF TRADE.

Your Uncle Samuel's balance sheet of trade with foreign countries continues to wear a pleasing aspect for this coun-

Imports to and Exports from the United States during twelve months ending August 31 of the years named.

Year ending August 31. Imports. Balances Exports. \$ 906,403,525 1,066 603,779 1,236,643,922 1,269,504,882 1,399,000,520 1,500,613,236 \$169,239,698 309,930,745 613,451,902 546,272,569 550,324,710 656,931,876 1896. 8737,163,827 1897. 756,673,034 1898. 623,192,020 1899. 723,232,313 848,675,810 843,681,360

Totals . \$4,533,618,364 \$7,178,769,864 \$2,845,151,500 How well agricultural exports have held their own in the great increase of the period is seen from the fact that for the year ending Aug. 31, 1896, agricul-tural exports formed 63.9 per cent and for the last year they formed 63.7 per cent of the entire amount.

The great balance of \$2,845,151,500 has probably turned towards this country the balance of interest payments, so that our people are doubtless receiving pay for all they do and some money in addition.

The Commercial and Financial News, of New York, contains in its October 12 number a statement of the income and expenditures of the Atchison, Topeka & Santa Fe Railway for the year ending June 30, 1901. The Santa Fe was formerly an exclusively Kansas property It long ago reached out to the Pacific to the Gulf, and to Chicago. Its earnings are therefore drawn from a wide territory. It will be remembered that this road suffered from the collapse of a few years ago even more severely than other interests of the West. The former owners were unable to hold it and it went into the hands of receivers until a new company could be formed and the debts could be provided for. That the property is now efficiently managed is evident from the statement for the fiscal year. The gross earnings from operation were \$54,474,822.61. The operating expenses, including taxes, rentals, and other charges, were \$34,502, tals, and other charges, were 405,005, 039.97, leaving a profit balance of \$19.972,782.74. The fixed charges, including interest on adjustment bonds were \$783,810.83, leaving a net income of \$12,474,529.08. The capitalization of the property is stated to be \$102,000,000. Two dividends have been declared on this stock, aggregating 4 per cent. It will be readily seen that a large surplus still remains. The financiers of the East express the most profound admiration for the efficiency of management which has made these results possible.

Galloway Breeders' Meeting.

The annual meeting of the American Galloway Breeders' Association was held at the Midland Hotel, Kansas City, on the evening of October 24. It was rather earlier than usual for the time of the annual meeting, as the year's work is not supposed to end until Nov. 1; however, in order to take advantage of the great cattle show and otherwise to accommodate the members, it was decided to hold the annual meeting ear-

There was a very large attendance, about 100 members being present and the remaining members were quite generally represented by proxies, but, owing to the fact that these proxies were in so few hands they were not considered, as no one member was allowed to control more than 10. This, together with the fact that Secretary Herne announced his inability to have the annual reports of the secretary and treasurer made it impossible to transact but very little routine business, which, in view of the clash between the executive committee and the secretary, resulted in a change of officers of the association and the removal of the office from Independence, Mo., to the Live Stock Exchange, Kansas City. The principal business of the evening was the election of directors for the ensuing year, and balloting resulted in the election as directors of O. H. Swigart, Illinois; Marion Parr, Illinois; C. B. Rowland, Iowa; E. W. Thrall, Kansas; A. M. Thompson

Clarke, Minnesota; Wm. Martin, Can-ada; and C. N. Moody, Missouri.

At the close of the meeting the directors met according to the rules and elected president, C. B. Rowland, of Rose Hil, Iowa, to succeed E. W. Thrall, and decided on Robert W. Park, of Kansas City, Mo., for secretary.

Robinson & Son's Successful Swine Sale.

Robinson & Son's Successful Swine Sale.

J. T. Robinson's sale, at Bates City, Mo., October 22, 1901, was pronounced by all present to be the most successful sale of the season.

Representative breeders from Iowa, Ohio, Illinois, Missouri, Kansas, and Indian Territory, were present, and 67 head sold for \$2,889, an average of \$43.11.

The Chief Perfection 2d young stock sold the best, 3 of his spring litters selling for \$893, as follows: May 8, litter of 5 from U. S. Medium 142150, \$348; April 7, litter of 6 from White Face Tecumseh Vol. 16 S., \$258; and a March litter of 7 out of Hulda L 2d 153358, for \$257.

The following is a complete list of buyers of all hogs sold:

T. P. Sheehey, Amos, Mo.; Clark and Combs, Bolivar, Mo.; W. P. Goode, Lenexa, Kans.; J. A. Rosenberry, Goodwine, Ills.; John M. Belcher, Raymore, Mo.; J. S. Athens, Hamburgh, Iowa; C. J. Jamison, Oneida, Ills.; T. B. Hart, Edinburgh, Ills.; A. M. Frazier, Everett, Kans.; H. C. Walker, New Madison, Ohio; T. B. Hart, Eidenburgh, Ills.; J. R. Young, Richards, Mo.; E. E. Axline, Oak Grove, Mo.; Joe Young, Richards, Mo.; James Young, Norburn, Mo.; W. O. Wayman, Odessa, Mo.; John S. Williams, Woodland, Ill; Kirkpatrick & Son, Wolcott, Kans.; Snyder Bros., Winfield, Kans.; C. G. Sparks, Marshall Mo.; P. G. Mills, Pleasant Plains, Mo.; A. T. Snyder, Higginsville, Mo.; J. M. Belcher, Raymore, Mo.; J. Clarence Norton, Moran, Kans.; Caidwell & Son, Champaign, Ills.; J. B. Straight, Bates City, Mo.; J. L. Clark, Bolivar, Mo.; J. M. Belcher, Raymore, Mo.; Gus Aaron, Kickapoo, Kans.; J. F. Smith, Meadville, Mo.; J. G. Dorton, Orton, Mo.; W. Brown, Bates City, Mo.; J. F. Smith, Meadville, Mo.; J. G. Dorton, Orton, Mo.; W. Harmon, Ridge, Kans.; A. H. Bainbridge, Bates City, Mo.

American Royal Notes.

W. G. McCandless & Sons, of Cotton-wood Falls, Kans., were in the Royal Cat-tie Show with a small herd of Galloways. Other Kansas breeders of Galloways should follow his good example.

Much regret is expressed because the Aberdeen-Angus Association did not make an exhibit along with the other beef breeds this year. Perhaps they will see the advantage of doing so next year.

F. G. Oxsheer, of Ft. Worth, Texas, was substituted for John Scharbauer as judge of the Hereford cattle, Mr. Scharbauer being detained at home. His substitute won henors as a careful and accurate judge.

The Annex of H. Losen was the nearest restaurant to the show and did a land-office business. The live stock breeders' trade is their desire, and every one in attendance at the sales was cordially invited to call.

An excursion party, composed of students of the Iowa Agricultural College, and accompanied by Prof. Curtis, arrived on the grounds in time to take a preliminary view of the cattle on Sunday preceding the opening of the show.

The Transit House, near the Live Stock Exchange at the Kansas City Stock Yards, under its new management is the most popular headquarters for stockmen. The service is of the best and prices quite reason-

Asa Smith, an old Kansas State Agricultural College boy, is a most efficient assistant in the office of Secretary C. R. Thomas, of the Hereford Association, with headquarters at No. 225 West Twelfth St., Kansas City, Mo.

Among the Herefords, Geo. H. Adams' Convention Hall bull, Orphens 4th, attracted much attention. Mr. Adams' is a successful breeder at Linwood, Kans., and has a habit of getting "inside the money" at the big cattle shows.

"Highland Mary," the Convention Hall Galloway heifer, attracted much attention to the stables of Messrs. I. B. & A. M. Thompson. She now carries 1,340 pounds of prime beef inside ner wooly skin, and is mighty good to look at.

I. B. & A. M. Thompson, of Nashua, Mo., had a bull in the Galloway section that puts on 5 pounds of flesh every day. He grew 110 pounds in weight in twenty days before coming to Kansas City, and 29 pounds in the first five days he was there.

Prof. Edgar A. Burnett, director of the agricultural experiment station and professor of animal husbandry in the State Agricultural College at Lincoln, Neb., accompanied by Prof. H. R. Smith, of the same institution, took in the cattle and Angora goat shows.

Mr. E. M. Williams, superintendent of Colonel Casey's great Shorthorn Farm, is feeling good all over about the record made by Alice's Prince and his get. Mr. Williams is a thorough good fellow-for a bachelor—and one of the best posted Shorthorn men in the West.

Rumor has it that there will be a horse show held by breeders in connection with the cattle show next year. The cattle show has proved such a grand success in every way this year that other people want to participate. There is room for all, and the city will do its part.

F. D. Tomson, of the Iowa Homestead, has much to be thankful for. He is a son-in-law of Secretary F. D. Coburn, an old Kansas Agricultural College boy, a son of T. K. Tomson, the Shorhorn breeder has a good job, and a mighty fine baby. Some folks want the moon, too.

the great Percheron breeders of Wakefield, Kans., attended the horse show and looked in on the cattle show on Friday and Sat-urday. Being a graduate of the Kansas State Agricultural College, fine cattle and hogs, as well as fine horses, look good to him.

Mr. John Warner, a pioneer farmer and Shorthorn breeder of Riley County, Kans., was an interested visitor during the week. Mr. Warner is preparing to "adopt" one of the Kansas State Agricultural College boys for superintending his farm and herd, in order that he may have nothing to do but "boss."

One of the side exhibits that attracted most attention was the rugs, druggets, coats, and cloaks made from the wooly skins of the Galloways. This breed of cattle, besides other good qualities, is possessed of hair of great length and fineness, which makes their skins of value for the purposes named.

Charles E. Sutton, of Russell, Kans., successor to Wm. B. Sutton & Son, of Rutger Farm Herd of Aberdeen-Angus cattle, was a daily visitor at the Royal show. Like other Angus men he very much regrets that the Angus cattle were not represented in the great show, and promises himself that it shall not occur again.

Mr. T. A. Hubbard, of Rome, Kans., who is one of the best known breeders of Poland-China and Berkshire swine in the West, was an interested visitor during the week. While he does not claim to know cattle as he does hogs, it was noticeable that he could "size up" a good animal along with the best of them.

Mason S. Peters and Jerry Simpson, two former Kansas Congressmen, were interested spectators at the show. They spent most of their time in the barn, where they were greeted by many of their former constituents from the Sunflower State. Both are now in business at the Kansas City Stock Yards.

On Wednesday there was received at the cattle show barn a car load of Galloway calves that were sold at the Stock Yards for 6 cents per pound. This price was \$1.40 per cwt. more than was paid for any calves of any breed at the Kansas City market within a year past. They are all out of stock breed by Geo. Kellam, of Richland, Shawnee County, Kans.

What, with gasoline engines, corn-fodder shredders, power pumps, pitless wagon and stock scales, the great exhibit of the Angora Goat Association, the Horse Show, and Cresceus, the world famous trotter, there were enough things outside the Royal Cattle Show to interest the average farmer for a day or two in Kansas City.

Frank Rockefeller, president and the most wealthy member of the American Hereford Breeders' Association, arrived from Cleveland, Ohio, Tuesday evening, and attended the show and sale. Mr. Rockefeller has a large ranch near Belvidere, Kans. He breeds both Shorthorns and Herefords, but has a strong leaning in favor of the latter.

The greatest national record of sweeping successes achieved by any show herd of Herefords at the leading State and national shows for 1901 was by the Model Farm Herd of Overton Harris, Harris, Mo. During the show he distributed a large number of cattle show souvenirs, the cleverest exploitation ever gotten out by a cattle

C. H. Jameson, Peoria, Ill., was present.
Mr. Jameson is a wealthy manufacturer,
and breeds fine Herefords as a side line.
He is president of the Riverside Hereford
Cattle Company, of Ashland, Neb., of which
William Humphrey is manager and the
most active spirit. Mr. Humphrey and Colonel E. C. Scarlett, of the Riverside Company, were at the show.

Mr. Shartel, manager of the Kansas City office of the Pasteur Vaccine Company, had a booth at the show and gave a continuous performance to a constant crowd of interested cattlemen. All of his old customers and many more to be were entertained and edified by the lastest information regarding the merits and necessity of blackleg prevention by the use of Pasteur Vaccine.

Fred L. Dickey cashier of the Kansas Fred L. Dickey cashier of the Kansas City postoffice, was at the show, and contemplates engaging in the Shorthorn breeding business. His father and his brother, Walter S. Dickey, own 1,280 acres of land 12 miles south of Paola, Kans., on which Mr. Dickey will place his purchases. Internal Revenue Collector Kellogg is iniating him into the elementary mysteries of the business.

Mr. Horace A. Field, of the National Angora Goat and Cattle Company, whose farms are located at Wellsboro, Pa., and Cedarville, Md., was a long-distance visitor at the goat show. Mr. Field is vice president and general manager of his company and reports the sale of 1,000 Angora goats from their farms on the day before left for Kansas City.

Secretary Thomas, of the Hereford Assocition; Assistant Secretary Cowan, of the Shorthorn Association; and Secretary Hearne, of the Galloway Association, agree in declaring that this year's American Royal is the greatest cattle show ever held. The talk of having all the best beef breeds reand several other kinds of stock in next year's show has already been revived.

VI. B. & A. M. Thompson, of Nashua, Mo., sold the prize-winning Galloway steer, Cash of Nashua, at auction for the handsome price of 15 cents per pound. As the steer weighed 1,650 pounds, he netted his owners \$207.50 in cold cash. This steer is a three-fourths Galloway grade, and holds the record as being the highest priced Galloway ever sold at Kansas City for butcher purposes.

Keep your eyes on Harris, Mo., and watch for fine stock developments. In the awards for both Shorthorns and Herefords, Harris, Mo., was in evidence by Purdy Bros. and O. Haris. The next event of importance will be the Shorthorn sale at Kansas City on November 12 and 13, when Purdy Bros., of Harris, Mo., will offer the best lot of Shorthorns offered at any recent sale, including their show herd and the famous herd bull, Golden Knight of

Enterprise. Notice the winnings in our report of the American Royal this week,

D. Whittier and Colonel Moore, of the Moore Chemical and Mfg. C., of Kansas City, had headquarters at the show and did the busiest week's work of their existence. The volume of business transacted and the personal indorsement of promficient to swell them up beyond all recognient stockmen during the week was sufnition of their common friends—the newspaper men.

T. J. Robbins & Sons, of Horace, Ind., had a 2-year-old Shorthorn heifer that has never been beaten in her class and has been showing most of her life. She weighs 1,735 pounds, and her flesh is smoothly distributed. At Springfield, Mr. Robbins was anxious, for she had to show against Cicely, the imported cow that carried away prizes at the English Royal last year, but Ruberta won.

George Harding & Son, Waukesha, Wis., who have won a large number of prizes during the show with their Shorthorn herd, are even more widely known as sheep than as cattle breeders. Last year they handled 20,000 head of sheep. They have two or three herds of the mutton and wool makes on the move throughout the summer, and exhibit at almost every State fair of importance from the Atlantic to the Pacific. Their favorite breeds are the Cotswold and the Rambouillet.

John Sparks, Reno, Nev., the man who made himself solid with Kansas City people by buying the Convention hall helfer, "Armour Rose," was at the show. Mr. Sparks was formerly one of the most successful range breeders in the country. Several months ago he disposed of several thousand of his range cattle and a good deal of his land for \$1,500,000, and is now devoting himself almost exclusively to the breeding of thoroughbred Herefords.

One of the unfortunate things about a great cattle show is that most of the breeds have but one pair of horns, and some of them none, on which to hang the show ring number and the prize ribbon. Because of this fact the herdsmen always hang the prize ribbon over the number on the aimal's head, and thus hide both the number and the identity of the animal from the audience, much to their discomfort.

An amusing incident occurred in one of the Hereford show rings. The two judges failed to decide between two buils that had been well placed in the ring, and called on the referee for help. After a brief examination of the two contesting animals, the referee decided which was the better, and then remarked to the judges: "Now, you had better walk down the line and pick out a better animal than either." This the judges did.

"Governor" T. A. Simpson, of the firm of Gudgell & Simpson, was at the show. It was the first time that he has been in Kansas City in several months. He was formerly recognized as one of the best cattle judges in the West, and State and county fairs were seldom pulled off without his presence. He has become feeble within recent years, however, and does not travel much. His figure is familiar to a great majority of the visiting stockmen.

N. P. Clark, St. Cloud, Minn., one of the exhibitors at the show, has in quarantine in Quebec the largest importations of Shorthorns ever brought to the United States. The importation includes 46 Shorthorns and 14 Galloways. Mr. Clark paid high prices for all of them. He gave Lord Lovell \$1,500 for one Shorthorn helfer. Several other helfers in the consignment were bought from Lord Lovell. Mr. Clark owns 2,800 acres of land near St. Cloud, and has 200 of the best Shorthorns in the world on it.

During the show Mr. Chas. W. Lewis, Warsaw, Mo., made a special trip to St. Joseph, Mo., where he purchased 9 bucks of W. C. Beardsley, among the number a half-brother to Lazarus, the champion of the first annual show. He also purchased some bucks from the famous Bailey flock of California and Col. W. L. Black, of Fort McKavett, Texas. These purchases and others made at the association sales will make Mr. Lewis' flock rank as one of the leading ones of the West.

Iowa was well represented among the breeders at the show. Martin Flynn, Des Moines, is one of the oldest Shorthorn fanciers in the country. C. C. Bigler, Hartwick, is a very wealthy man and has extensive interests besides his fine farm and the stock upon it. He has about 200 Shorthorns, and they compose what is regarded as one of the most valuable herds in the country. Among other Iowa breeders are G. W. Brown, Indianola; G. W. Wood, Amboy; C. A. Saunters, Manila, and G. W. Redhead, Des Moines.

N. H. Gentry, of Sedalia, had a Shorthorn N. H. Gentry, of Sedaha, had a shorthold ralf in the show that won first prize in the State fair at Springfield, Ill., this year. On his way to Kansas City he met D. F. Coons, of Fort Scott, Kans. "I'll give you \$500 for the calf," Mr. Coons said. "Don't want to sell," said Gentry. "See here," Mr. Coons said, "the time to sell a calf is when you have a man who wants to buy him. I'll give you \$600." Mr. Gentry accepted the second offer, but will keep the calf in his herd till after the close of the fall shows.

Mr. Geo. F. Thompson, formerly a member of the faculty of the Kansas State Agricultural College, was here upon invitation of the Angora Goat Association, for whom he acted as judge. Mr. Thompson is now an editor of the publications of the Bureau of Animal Industry of the United States Department of Agriculture, and raises Angora goats "on the side." His bulletin on Angora goats, recently issued by the Department of Agriculture, has attracted much merited attention.

The live stock press of the country was well represented at the show and sale. Among those present were the following: Roy B. Simpson, associate editor of the Chicago Dally Drovers' Journal; Alvin Saunders, W. R. Goodwin, and W. M. Lambing, Breeder's Gazette; A. Yoder and John Wallace, Wallace's Farmer, Des Moines, Iowa; George P. Bellows and Teddy Morse of the Iowa Homestead, E. S. Shockey, Chicago Live Stock Report, and Burt,

Omaha Journal-Stockman. Among the live stock artists present were Cecil Palmer, N. T. Troop, David Risk, L. A. Webster, John W. Hill, Lou Burke, and H. L. Ritchie.

Leslie Smith, herdsman for N. P. & C. E. Clarke, of St. Cloud, Minn., is a native of Scotland, the home of the Galloways and Shorthorns. He frequently goes abroad, and was at the English "Royal" at Cardiff last summer. "This show surpasses the original 'Royal' as a cattle show," said Mr. Smith. "If I remember correctly there were 130 Shorthorns, and about the same number of Herefords and 30 Galoways there. I think the cattle here are also superior to theirs and the show is better managed."

managed."

E. W. Randall, of Hamline, Minn, secretary of the Minnesota State Fair, believes the American Royal Cattle Show has a great future. "It is undoubtedly the finest exhibition of the beef breeds now held in the United States," said Mr. Randall, as he stood inside the show ring. "Kansas City is the best located place in the country at which to hold a show of this kind." Mr. Randall thinks Kansas City's exhibition should be converted from the American Royal Cattle Show into the American Royal Live Stock Show, having exhibits of all kinds of fine stock.

The judges in the Hereford division are all now or have been Hereford breeders. They are, Thomas Mortimer, who has charge of Marshall Field's fine farm at Madison, Neb.; F. G. Oxshear, of Fort Worth, Texas; W. S. Van Natta, of Fowler, Ind.; and W. H. Giltner, of Eminence, Ky. Three of the Shorthorn judges—Charles Gudgell, of Independence, Mo.; F. A. Nave, of Attica, Ind.; and C. A. Stannard, of Emporia, Kans.—are Hereford breeders. The fourth is Omer Bigler, of Hartwick, one of the most prominent and successful Shorthorn breeders in Iowa.

C. P. Bailey & Sons Company, of San Jose, Calif., whose Angora goat farm was established in 1867, were there with a fine cargo of their best animals, among which was the prize-winning buck, Pasha-Calumbia, which sold to Mrs. M. Armer, of Kingston, N. M., for \$1,000. In order to enable this firm to come in closer touch with the farmers of the great central plains, where the climatic and other conditions are so favorable for the Angora goat industry, the Messrs. Balley now propose to establish another Angora farm in Kansas.

One of the exhibits at the Angora Goat Show which attracted most attention, especially from the ladies, was the display of Angora rugs, robes, furs, Mohair goods, and plushes. The articles manufactured from Angora hair were of wonderful fineness of texture and great beauty of coloring. It is stated that all of the plushes used for seat covering on the railroad cars and the Mohair goods so much worn by ladies in this country, as well as the muffs and boas worn by children, are the product of the Angora goat, and most of them are manufactured in this country.

Among the interesting people at the show was F. McHardy, of Emporia, referee in the Galdoway class, who was an exhibitor of fine stock for more than half a century. His first exhibit was made in 1840, when, at the age of 15, he entered a Shorthorn calf at the New York State Fair. Four years later he started in business for himself as a breeder of Shorthorns, and later was the first man to bring Herefords west of the Mississippi. He was also the pioneer in the Western States in the matter of holding public sales of fine cattle. He quit both Shorthorns and Herefords and devoted himself to Galloways, but has not exhibited since 1892.

Col. W. R. Nelson, owner of the Kansas City Star and the Times, entertained quite a party of Shorthorn breeders and newspaper men. They were in charge of Mr. Fred Glick, who took the party out to Boone Farm, located about 5 miles south of the limits of Kansas City. It was tne opinion of the breeders that they never had seen a better and more uniform herd of females anywhere, and the equipment and other conveniences were unsurpassed by any establishment in the country. Boone Farm was recently sold and this magnificent herd will likely be dispersed during the early part of next year.

President E. R. Nichols, Profs. H. M. Cottrell, J. T. Williard, D. H. Otts, Miss Edith McIntyre, Marian Jones, V. M. Shoesmith, and L. Wabnitz, of the Kansas State Agricultural College, accompanied by about 300 students—both boys and girls—came down to the cattle show on a special train on Friday morning and returned on Saturday evening. During their visit they inspected the packing houses and machine shops of the city, and some of them—the girls—the millinery stores. They devoted most of their time, however, to the Royal Cattle Show, and expressed themselves as being more than repaid for their visit. They made their headquarters at the Centropolis Hotel.

The Shorthorn breeders were jubilant at the progress and success achieved during recent years and did not attempt to conceal their delight and good feeling over the present and prosperous plight of the Shorthorn industry. During Friday night, the press and a large number of Shorthorn breeders attended a swell banquet as the guests of Colonel G. M. Casey, the well-known breeder of Henry County, Mo., at the Midland Hotel. Covers for sixty-five were laid in the ordinary, which was made beautiful with smilax and roses, and an orchestra played while an elaborate menu was served to Colonel Casey's guests. The true cattle man's generosity was apparent in everything.

Ladies were very much in evidence at the show and sales, and among the number were several owners of Herefords, and Miss Lou Goodwin, of Blue Rapids, Kans., enjoys the distinction of being the only woman exhibitor in the show. She had a good females in the Hereford division. Miss Goodwin's father was a well known Kansas breeder of Herefords. On his death, instead of selling has herd, as most women would have done, Miss Goodwin, who is both young and pretty, decided to go into the cattle breeding business herself. She has met with much success. She attends the sales of Herefords in Kansas City

There is probably no live stock commission firm that does business at the Kansas City Stock Yards that can give you better service in the way of selling or purchasing stock than the Union Live Stock Commission Company. This company has a corps of competent men in all of the departments of the live stock trade. It furnishes this paper and market reports free upon application.

Directors: M. S. Peters, Jerry Simpson, F. E. Rowles, W. K. Greene, Henry O'Neill, Geo. W. Williams, L. C. Boyle.

Kans., widow of the owner of the Sunny Slope Farm. Mrs. Cross sold Sunny Slope to C. A. Stannard, its present owner, and bought a smaller farm adjoining it, on which she continues to breed and raise Herefords.

"The status of a nation can be determined by the quantity and quality of the beef it consumes." said Major E. L. Williams, a prominent Shorthorn breeder, Clinton, Mo. "The Italians, probably the weakest of the first-rate powers, consume but 24 pounds per annum per capita, the Spaniards 27 pounds, Bohemians and Hungarians 31 pounds, Germans 56 pounds, English 125 pounds, and the Americans 146 pounds. And it is an historical fact that the real advancement of the Anglo-Saxon race is coeval with their beginning to improve the grade of their Shorthorns in 1725. Beef is the best possible missionary and I am sure that the judicious distribution of several cargoes among the Filippinos would go a long way toward suppressing the insurrection."

Among the really good hotels of Kansas City to which the tired stockman turns for a good square meal, clean bed, excellent service, and courteous treatment, the Centropolis stands high. This excellent hotel is located in the very heart of the business part of the city, on Fifth street, and is near its various theatres and places of amusement, and within easy reach of the Union Depot, the Stock Yards, and packing houses by means of the cable and electric street car lines. During the cattle show the Centropolis was made the headquarters of the president, members of the faculty, and students of the Kansas State Agricultural College, as well as by many prominent cattle men, and by the ladies.

Eugene Rust, traffic manager of the Kansas City Stock Yards Company, was one of the best satisfied men at the show. Mr. Rust has taken great interest in the exhibitions of cattle in Kansas City, and was one of the first to perceive that they would be a great help to this market. During last year's sale, Mr. Rust said, in conversation with a reporter for the Journal, that the cattle show in Kansas City must be made an "American Royal." The name was used the next morning in a story by the Journal, and has since been officially adopted. Mr. Rust says, however, that it did not originate with him. He gives the credit of suggesting it to him to Thomas Clark, of Beecher, Ill. Mr. Clark is a native of England, and has attended several English royal shows. English royal shows.

English royal shows.

Charles W. Armour was one of the most interested spectators at the cattle sale and show. Mr. Armour has been in the East, or he would have attended earlier in the week. The late K. B. Armour was one of the most enthusiastic Hereford fanciers in the West. He gave a permanent donation of \$250 annually to each of the associations, and with this the "Armour trophies" are bought. They are awarded every year to the owners of the best bulls of any age exhibited in the various divisions of the show. Unlike those awarded at many annual exhibitions, the Armour trophies become the permanent property of those who win them. Charles W. Armour has always taken an interest in the development of the beef breeds. It is probable he will hereafter be more consplcuously identified with it.

Antidotum Tuberculose.

Antidotum Tuberculose.

This is a new and scientific treatment for the cure of tuberculosis in its various forms. The evidence of the value of this remedy is beyond question and thoroughly convincing. The statements of some of the patients who have been treated by this new, modern and scientific method, are almost beyond human credence.

While Antidotum will cure consumption after it is contracted, its great value consists in the fact that it will prevent the disease. It is an anti-toxine acting medicine, being taken up by the blood, assimilating with it, entering the circulation, the peculiar component parts adding to the blood certain properties in which the tubercle bacillus will not propagate nor thrive.

We are profoundly impressed with the great value of this remedy for the dread disease, consumption, and we earnestly suggest to all our readers, if at all interested, to write to the Kalamazoo Tuberculosis Remedy Co., Ltd., Kalamazoo, Mich., for their very interesting booklet embodying a treatise on the merits of this wonderful remedy. Mention this paper when you write, and special consideration will be given your case.

Publisher's Paragraphs.

Publisher's Paragraphs.

There has just appeared from the bress of the Fractical Farmer, Philadelphit, Pa., a book on "Crop Growing and Crop Feeding," by Prof. W. F. Massey, of the North Carolina Agricultural College. For all who use comercial fertilizers this pook possesses great value. It is also valuable as a help to the proper use of leguminous plants and crop rotation in promoting fertility. The book is full of the sterling common sense for which the writings of Professor Massey have long been conspicuous.

Attention is called to the advertisement in this issue of the great mall order house of E. H. Stafford & Bro., Chicago, who have just issued a big catalogue, listing the many articles handled by this firm. It is like visiting a great store to look this book through, and that without the time, expense, and worry of going to the city. You are asked to send 4 cents in stamps to pay part of postage when sending for catalogue No. 506. The leaders in the present advertisement are men's fine clothing and wearing apparel for ladies, household goods and family supplies.

Borticulture.

Apple-Growing in Kansas. NEW YORK TIMES.

Fred Wellhouse, the apple king, is so busy in his orchards these days gathering his apple crop that he hasn't time to come home Sundays and attend church. He began to pick his apples last week. He will not finish for at least three weeks yet, with the most favorable weather; for he has a good many apples to pick—1,240 acres of

While Kansas hasn't what is termed a full apple crop this year, it has more than an average crop, and Mr. Wellhouse's orchards rank the average orchards. He will get in the neighborhood of 60,000 bushels and will clean up \$20, 000 or \$25,000 profit this season. That beats the profits derived from the wheat crop in the wheat belt, in proportion to acres.

Mr. Wellhouse is a thorough fruit man. That is his specialty. He doesn't profess to know much about other lines of agriculture, although he is an extensive land owner. He believes that a person can make a success in life by devoting his thought and energies to

He picked out fruit as his line. He has certainly made a success. He is the apple king of Kansas. He has more acres of apple trees, has more good bearing trees to the acre, and has the best quality of apples of any one. This is because he has made a special study of the apple question. It is the only thing he has to think of except what to do with his profits, which he usually puts back into more orchards.

In 1875 Mr. Wellhouse was practically a poor man. Not a big farm did he own. He had, up to that time, worked mostly for others. While doing so, however, he studied tree growing He liked the study, and to tinker around an orchard. He was continually making experiments and gained much know edge in this way. In some way L. B. Wheat, an attorney of Leavenworth, heard of Mr. Wellhouse and his fad. Mr. Wheat had a lot of rough land in Leavenworth and Miami Counties, and it wasn't worth much for farming purposes, but he thought it might be good for fruit. He consulted Mr. Wellhouse and as a result a partnership was formed. Mr. Wheat furnished the land and Mr. Wellhouse the trees. While the trees were growing Mr. Wellhouse was to have whatever he could raise on the land.

The 160-acre Fairmount orchard, in Leavenworth County, contained 80 acres of Ben Davis, 40 acres of Jonathan, 24 acres of Winesaps, 8 acres of Maiden Blush, and 8 acres of Cooper's Early

The 117-acre Glenwood orchard, also in Leavenworth County, contained 60 acres of Ben Davis, 41 of Missouri Pippin, and 16 of Winesaps.

The 160-acre Gardner orchard, in Miami County, contained 80 acres of Ben Davis, 42 acres of Missouri Pippin, 22 acres of Winesaps, 8 acres of Maiden Blush, and 8 acres of Cooper's Early.

The utmost care was taken of the young trees, and they grew rapidly. Within six years they were bearing. And they bore and bore. As a paying proposition these orchards were regular gold mines. For more than fifteen years they yielded handsome returns, but their days of usefulness ended about 1895. During their producing life they netted their owners \$104,000 profits, and this sum was divided equally between Mr. Wheat and Mr. Wellhouse.

the profits of these orchards Mr. Wellhouse bought land and planted some orchards of his own. He didn't wait until the partnership orchards run out. He planted his own so that they began to bear about the time the old orchards gave out. He walked out of the old partnership orchards right into his own new ones, where he got all the profits instead of half. From that time on he has been diong business on his own accord.

His orchards now contain 1,240 acres Of this 800 acres are in Osage County. The Osage orchard was planted in 1889, 1890, and 1891. The remainder, 440 acres, are in Leavenworth County. The Osage orchard is in one tract. In Leavenworth there are two orchards-300 acres in one and 140 acres in the other. The larger one in Leavenworth was planted in 1894; the smaller in 1896. Both are now bearing.

Mr. Wellhouse studies tree culture as a florist does flowers, as a minister does the Bible, as a politician does politics. He begins with the little sprig and nurses it tenderly, cares for when it grows up and removes it at its

its case and tries to cure it. He also works to prevent the disease from spreading to other trees. To look after To look after the health of an orchard is no little task. It takes a tree doctor to do it properly. Mr. Wellhouse is foe to the hundreds of different kinds of bugs and pests that seem to take special delight in killing orchards. He has made bug-ology a study for years, that is the bugology that has anything to do with orchards. He uses all the modern tools invented and remedies discovered to keep his orchards in a healthy condi tion. He has also invented some tools and discovered some remedies himself which are universally used by orchardists.

After years of experimenting, Mr. Wellhouse has found how to plant orch ards in Kansas so they will grow and yield the best. He sets out trees when they are two years old. Instead of digging a hole for each tree he plants them in trenches. The trees are plant-ed 16 feet apart in the trenches and the rows are 32 feet apart. The trenches run north and south. By plant ing this way no wind break is necessary; the dense shade makes the evaporation of the moisture in the ground less rapid, and if an extra good stand is obtained the trees can be thinned out. High winds have always been dangerous to orchards in Kansas, and most orchardists usually plant timber around the orchards to be used as windbreaks. By the trench system of planting the apple trees form their own protection from the wind. Moisture is another essential thing in tree growth, and by planting trees closely this question is solved.

The Ben Davis apple is the greatest producer, so Mr. Wellhouse has discovered. For this reason he has planted more than half his orchards in that kind of trees. The next best producer is the Missouri Pippin, the third is the Jonathan, while the Gano and New York Imperial are tied for fourth place.

Probably the greatest apple crop ever produced by one man in the Central West was raised by Mr. Wellhouse in 1890. That year his orchards yielded 80,000 bushels and he received \$52,000 for his crop. He keeps a complete record of his fruit productions each year, and from it he figures that the average profit per bushel for apples during the past twenty years has been 28 cents. During that period the apple crop has averaged about 50 bushels to the acre per year.

In recent years Mr. Wellhouse has sold his crop on the trees. Cold-storage concerns have become extensive apple buyers. They simply buy up the crop, and pay all expenses in picking it. In the case of Mr. Wellhouse he usually agrees to superintend the gathering of the crop. He has another object in doing so outside of getting paid for it. He watches the pickers, and prevents them from damaging the trees. Apple pickers could by carelessness ruin orchard in one season, but they will never ruin the Wellhouse orchards. An apple picker who will not take pains and protect the trees soon gets his walking papers. Mr. Wellhouse makes that one of the conditions of the contract when he sells his crop.

A New York firm has contracted for the apples in the Wellhouse orchards this year. An army of men are now at work picking and packing the fruit in barrels for shipment. It will take a month to complete the work.

A better idea of the extent of the Wellhouse orchards can be obtained when it is stated that it will require 100 freight cars to transport this year's crop

Next to the Wellhouse orchards in extent comes Gov. E. N. Morrill's orchard Morrill bought it several years ago as an investment, and it has proved a great money maker. It even beats his bank stock at Hiawatha as a dividend payer, and this is saying much when it is taken into consideration that the Morrill bank is probably the best one in Kansas. Governor Morrill has also sold his crop on the trees. He handles his orchard on the Wellhouse plan.

Talk About Apples.

The apple contains a larger percentage of phrosphorus than any other fruit or vegetable. This phosphorus is admirably adapted for renewing the essential nervous matter, lethicin of the brain and spinal cord. The old Scandinavian traditions represent the apple as the food of the gods, who, when they felt themselves to be growing old and feeble and infirm, resorted to this fruit for renewing their powers of mind and when it grows up and removes it at its body. The acids of the apple are also death. When it gets sick he diagnoses of signal use for men of sedentary

habits whose livers are sluggish in action. These acids serve to eliminate from the body noxious matters, which, if retained, would make the brain heavy and dull or bring about jaundice or skin eruptions and other allied troubles. The ancient practice of taking apple sauce with roast pork, rich goose and like dishes is based on scientific reasons. The malic acid of ripe apples either raw or cooked, will neutralize any excess of chalky matter engendered by eating too much meat. Fresh fruits, such as the apple, the pear and the plum, when taken ripe and without sugar, diminish acidity in the stomach rather than provoke it. Their vegetable salts and juices are converted into alkaline carbonates, which tend to counteract acidity. A good, ripe, raw apple is one of the easiest of vegetable substances for the stomach to deal with the whole process of its digestion being completed in eighty-five minutes Besides these medicinal qualities of the apple, it has great virtue for local appli-cations. The paring of an apple cut somewhat thick is an ancient remedy for inflamed eyes, being tied on at night when the patient goes to bed. France a common remedy for inflamed eyes is an apple poultice, the apple being roasted and its pulp applied over the eyes without any intervening substance.—Chicago Record-Herald.

Some Underlying Principles of Variety Improvement.

HAROLD POWELL, WASHINGTON, D. C., IN AMERICAN GARDENING.

In fruitfulness important variations are always present in the trees of a va-riety. I have in mind some trees of the Winesap apple, one of which has borne a light crop year after year, while the trees on either side, though apparently under no better conditions, have been heavily loaded each bearing season. In dividual bushes of the Fay's Prolific current continue to show the widest variations in bearing, and the Crandall current is even more variable, while the chestnut trees of one variety under similar conditions vary from total sterility to heavy fruitfulness. Mr. W. P. Corsa, of the Division of Pomology, has told of trees of the native chestnut on which individual branches would bear when the remainder of the tree was fruitless.

There may be important variations in a variety in the quality of the fruit, as has been pointed out in the Pierce grape, the Banks apple, and the Cannon's Early peach.

In the foliage and in the flowers the variations are innumerable; the variegated foliage plants, the cut leaved varieties, the colored sub-varieties, the weeping types and the varietgated and double-flowered kinds—these are gen-really examples of bud variation which are propagated by further bud division. One of the most interesting foliage variations I know is in a Salix Babalonica var. annularis, a variety of the weeping willow in which the leaves turn inward and upward. The tree is 60 feet high and from one of the topmost branches a limb has appeared of the Salix Babalonica type.

I might expand the list of bud variations that have been propagated by bud division into hundreds of examples, but the few isolated cases that have been presented will illustrate the principle that there are differences in the buds of a tree which can be further perpetuated.

There is nothing unusual or rare about bud variation. Horticulturists have looked upon the variety as a fixed and stable entity in which variation is rare, and they have sought improvement in their fruits entirely through new kinds. But the fact is that bud variation is a universal law of plant life, for tions. We have not outgrown the old conception of the plant species as a fixed and permanent entity in nature, and the conception of the variety has not yet felt the influence of the new type of thought. It is time that horticulturists grasp the variey problem in its true relations to the evolution process where forms are not fixed and stable, but where there is constant progress through universal variation. It is time through universal variation. It is time cumulative selection. Evolution in nathat the horticulturist thinks of the tree ture is made possible by the preserva-

"Shut your eyes, open your mouth and see what luck will bring you."

The mother smiles at the childish game, and doesn't realize that it is a game she as a woman has perhaps played for a great many years. Many a woman is weak and sick,

nervous and discouraged. She suffers from headache, backache and other ills. She wants to be well, but all she does is

to shut her eyes and open her mouth for medicine and trust to luck for results. She "doctors" month after month, often vear after vear in this same blind, hap-hazard fashion, and receives no perma-nent benefit. Women take Dr. Pierce's Fa-

vorite Prescription with their eyes open to the fact that it cures womanly ills. It cures

irregularity. It dries debilitating drains. It heals inflammation and ulceration and cures female weakness. There is no trusting to luck by those who use "Favorite Prescription."

"Favorite Prescription."

"My disease was displacement and ulceration of the uterus, and I was in a terrible condition with pain and weakness and had given up all hopes of ever being well again." writes Mrs. Harry A. Brown, of Orono. Penobscot Co., Me. "Had doctored with four different doctors within four months, and instead of getting better was growing weaker all the time. I decided to try your 'Favorite Prescription,' 'Golden Medical Discovery,' and 'Fleasant Pellets,' as I had heard of the many cures resulting from their use, I bought five bottles and felt so much better after taking them that I kept on until I am as well as ever in my life, and to Dr. Pierce all the praise is due. I cannot say enough in favor of his medicines. Before I began taking your medicines I only weighed one hundred and twenty pounds. I now weigh one hundred and sixty pounds. I gained forty pounds in six months. I shall doctor no more with home doctors, as it is only waste of money. I am now in perfect health, thanks to Dr. Pierce."

Dr. Pierce's Pleasant Pellets clear the

Dr. Pierce's Pleasant Pellets clear the muddy complexion.

not as an individual but as an aggregate of individuals among which there is the widest variation

When the fruit grower has learned the meaning of the difference in the buds of a tree he will no longer select the buds of the Crawford peach from the nursery row, the bearing tree, the young tree, or any tree that is a Crawford. He will search among the variations that occur in his orchard, and, watching the trees for a few years, will finally select his buds from those that have shown particularly good qualities year after year. The plant breeder will no longer sow a bushel of seed and cast away fifty or a hun-dred thousand seedlings before he dis-covers one that is better than the Northern Spy, but if he wants a better Northern Spy he will look among the variable branches of his Spy trees until he finds a variation that approaches his ideal, and when he has satisfied himself that the variation is not an erratic one that will not appear again he will propagate from it, and, repeating the operation through several generations, he will at last realize his expectation and will know that the individual bud has been the key to the improvement of the va-

PRACTICAL SIDE.

But do not expect to accomplish great improvement by looking for bud sports or violent variations. This is no more scientific than the present method of searching for erratic seedlings. Take the slight differences, add them up by wise selection. Propagate only from the best and unless the laws of plant evolution stop at the stile and refuse to operin Leavenworth and Wyandotte Counties. It contains 800 acres. Governor differences in its surrounding conditions be expected commensurate with the skill and intelligence of the fruit

In closing, then, I would impress these things upon the thoughtful fruit grower. There are no two plants in nature alike; there are no two buds on a single plant alike. The key to the improve-ment of the variety in fruit growing is the variable seedling of the variable bud, and the fruit grower's power of ac-

6. PEPPARD. 1400-2 Union Ave., KANSAS CITY, MO **CLOVERS** TIMOTHY GRASS SEEDS.

KENTUCKY BLUE GRASS SEED

nuine Kentucky seed is what you want, and from September until June is the proper time to sow. For ed of our own raising, and full particulars, write MT. AIRY SEED FARM, Paris, Kentucky.

tion of individuals which possess some advantage of structure or constitution and by the elimination of those not able to survive in the struggle for existence. Evolution or improvement in the types of fruits is made possible by the preservation of the individual seedlings or buds of a variety, which present some commercial advantage to the fruit grower, and by the rigid elimination of those that are not commercially valuable. Progress by evolution is slow. Erratic variations are out of harmony with their surroundings. Permanent development follows the accumulation of slight differences in the individual in successive

Late cabbage, laid in shallow trenches, roots up, will keep well if not placed too close together in the trench. Dig a trench about 8 or 10 inches deep and 2½ to 3 feet wide, putting some cross pieces of wood in the bottom of the trench for some "odd-and-end" boards to rest upon, making a rough kind of platform, leaving a space of 2 or 3 inches beneath. A little straw is spread over the boards and the cabbages are packed in head down in two layers, the upper layer being placed be tween the angles formed by the cab-bages of the lower one. A ridge, or coping, is placed over to keep them dry, and attention paid to them so that they do not get frozen. In storing cabbage or any vegetable of a succulent nature it is always the better plan to handle the storing cabbage. dle them while perfectly dry and free from frost; unless matters are liable to become worse, when it is advisable to make the best of it and get them in. A coping comes in handy under these conditions because the ends can be opened or left opened at will, ensuring a good free current of air which will dry out to a considerable extent and so coun-teract the evil of excessive moisture.

FRUIT HARVESTING, STORING, MARKETING -A practical guide to the picking, A practical guide to the picking, sorting, packing, storing, shipping, and marketing of fruit. By F. A. Waugh, cloth, 250 pp, amply illustrated. Orange Judd Company, New York. Price, postpaid, \$1.

The fruit grower has two separate problems to solve: First, to grow the fruit, and second, to sell it. Every man who has tried it has found that the second of these problems is fully as diffiond of these problems is fully as difficult as the first. How to get money out of fruit is a question fully as urgent as how to get the fruit. There have been many fruit books written, but every one knows they are all on the subject of how to grow fruit. At most there is a paragraph or a half chapter on fruit marketing. The great question of sellmarketing. The great question of selling fruit has remained practically untouched, and this is the field now occupied for the first time by Professor Waugh's book on fruit harvesting, stor-ing, and marketing. It is a subject on which fruit growers will be delighted

to have some information.

The subjects covered by this book are the fruit market, fruit picking, sorting, and packing, the fruit package, and fruit storage, with a large appendix giving useful statistics of the fruit trade, fruit package laws, information concerning commission dealers and dealing, etc., etc. The important subjects of the fruit package and fruit storage by refrigeration, ventilation, and mechanical means, are especially well treated.

The author is well known as more than a local horticulturist. His experience, like his reputation, is national. He knows the fruit growers' conditions by actual personal acquaintance. If any one should be inclined to feel that a practical fruit grower rather than a professor of horticulture should have itten this book on iruit marketing, will soon see that the author's view is broader, more comprehensive, better able to see all sides of the subject, more judicious in picking out the salient and important elements than the view of any single fruit grower could possibly

The subject has been treated strictly from the standpoint of the fruit producer. The commission business, for instance, is thoroughly and fairly discussed, and the commission men can hardly help but be pleased with the advice given, yet it is all plainly directed to the benefit of the fruit grower. Evaporating and canning are handled in the same way-not by telling how to run a canning factory or a commercial evaporator—but by explaining those points which are of interest to the man who grows the fruit. The whole subject is tersely, plainly put and adequately illustrated. It is a book which every one can read and enjoy, and which no fruit grower, large or small, can do without.

When writing advertisers please mention Kansas Farmer.

The Poultry Hard.

The Two Hundred Egg Hen.

THEO. COIN, SEWARD, NEB., IN THE POUL-TRY KEEPER.

The keeping of hens for the sole purpose of the eggs they produce is profitable if they are layers—not layers around in shady places when they should be up and rustling, nor buried layers—those put to seed. A hen that can lay 100 eggs per year eats just as much as a hen which lays 200 eggs or more in the same length of time. If any wide-awake fancier or egg-farmer thinks twice or even three times about the last statement, he will come to the conclusion that I am right.

The average farm hen does not lay 100 eggs per annum and the fancier whose flock lays 160 eggs each year can justly feel proud of both his stock and the methods that he employs in their management. We have heard of egg records for individual hens of 289, 278, 242, 240, 213, 204, 201, 196, 180, and on down to 60 eggs per year. It has been asserted that the hens

that managed to carry off the honors in the egg contest of a few years ago were White Plymouth Rocks, but it's dollars to sunflowers that there was a trace of Mediterranean blood in them, and the out-cross was not far back The best that ever came to our notice for a Plymouth Rock as a flock was 194.3, and this by the Barred variety. Mr. Hunter says these birds were standard bred, and have been bred for egg production a few generations.

Some egg records are surely fictitious although good ones have been record We once noticed an ad of a California man who said his pullet laid three eggs in one day! The truth is that he has a bonanza at his hen ranch if the offspring of that three-egg-a-day pullet are in the least like their dam. Sounds nice, doesn't it?

The conditions necessary to the successful establishment of a flock of 200egg hens are numerous. The first thing would consider is the climatic condition, where we were situated, ex-treme cold or heat, and then select our breed and varieties with the sole intention of crossing them judiciously in view of founding a vigorous, healthy flock. If situated in one of the real cold States of the North, select a hen with abundant feathering, a comb not susceptible to frost, one which will re-spond well to feed in confinement, and as a breed, a hen that is known as a

If dark shelled eggs are what the market demands, choose a Wyandotte, if the buyers want white eggs, choose Minorcas or Leghorns or Andalusians. Should the reader have a strain or family of his particular hobby, that lay well under fair circumstances, keep them and derive your 200-egg flock therefrom.

HOUSE FOR WINTER LAYERS.

But bear in mind that the breed must be housed warmly in the North and that a warm house saves feed. The lighter or Mediterranean breeds must of necessity be housed warmer than Plymouth Rock, Wyandotte, or an Asiatic. A Plymouth Rock will lay better in the winter if housed in a coop



built for Leghorns than if housed in a home built for itself. The reason for this is that the builder most always thinks a Rock can stand lots of cold. And they do in most instances; but this keeps the hen ousy asimilating food for the generation of heat instead of converting it into that profitable

Warm houses are a necessity in a cold climate if winter eggs are expected. One must use judgment, however, in building in the climate in which he lives. For a cold Iowa winter, a house that is double walled (with dead air space), and has the roof heavily tarpapered or shingled and ceiled inside, and whose floor is off the ground a foot (thus allowing a dead air space which frost can not penetrate), and whose windows are single glazed and

fit the casings tight, is about the thing.

The windows should face the south and be kept clean to admit the warm winter sunlight; they should also be made to slide up or down, for this allows fresh air as needed.

Trap nests should be placed in your pens for breeders as this facilitates making the best layers. Don't use a trap that will hold the fowl on the nest for half a day; one or two are made that fit in a partition, and the hen going on the nest to lay closes it after her; when she has laid and left the nest to enter the detention pen, the nest opens automatically for the next layer. Thus no hen is shut on the nest for four or five hours or until the at-tendant releases her. The hen can always be scratching for the small grain in the straw and litter.

SELECTING THE LAYERS.

In the selection of individuals for the breeding pen be very careful. Each pullet of a breed or variety has her defects and peculiarities. Biggle says to select females that are fine boned, compared to others of the same variety. One of our neighbors keeps a nock of Black Minorcas for egg production only and the variation of the types of the best layers would astonish any-one. The best layer is lanky in legs and flighty, very vigorous and rustling, has this fact. clean snakey head, bright eyes, wedge-shaped body, and is constantly "sing-

Anyone who is acquainted with a business hen, knows her when he sees her, and a novice can in a short time tell his best layers and rustlers if he be observing of their habits. Thick necked, masculine headed hens should be eliminated from the breeding pens. It is an established fact that the Mediterraneans are the best egg producers. Their eggs are almost pure white in color, although some of the strains and families lay tinted or flesh colored eggs. Eggs of a light color hatch quicker, the chicks mature earlier, and the eggs are more liable to breakage than the brown

We find that hens when marketed on account of old age bring the most on account of our age bring the most if they are largest, but this profit derived from selling should not be allowed to influence the egg farmer in selecting the hen that fits his purpose. The Leghorns, Minorcas, and others of their largification or generally busy their classification are generally busy laying the much sought hen fruit when the larger Rocks and Wyandottes are broody. It is longer than it is broad in favor of the Mediterraneans. These mature, if rightly handled, two to four months ahead of the larger breeds. That's some more profit.

USE PURE-BRED STOCK.

Don't attempt the "200-eggor" with a flock of scrubs, as these are discouraging and generally degenerated as to vigor staming and size Large vigor, stamina, and size. Large, healthy pullets that are well matured should be used to lay the foundation of your 200-egg flock. Discard small, un-dersized pullets or hens although they most peet at your command. We will give a record of a certain man's flock and his methods of breeding as we believe that more can be learned from what he did than from what we could say of other flocks.

He bought 20 Black Minorcas and after testing them with trap nests and other sure thing devices, selected 5 of them for his breeding hens. To these he mated a large, well shaped, small combed male whose vigor and lusti-

About half the lamp chimneys in use have my name on them.

All the trouble comes of the other half. Масветн.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp. MACBETH, Pittsburgh.

ness were the talk of the neighborhood. The pullets laid for the full year ending December 15: No. 1, 182 eggs; No. 2, 190 eggs; No. 3, 179 eggs; No. 4, 196 eggs; No. 5, 193 eggs. Strange to say, the best layers laid the largest eggs, and they were the most fertile and hatched the best. There chicks grew the best and were quite hardy.

The second year, this city fancier of good layers used 3 pens of breeders. Pen 1 was composed of 11 pullets of the "193 eggor." Pen 2, 7 pullets of "196 eggor." Pen 3, 9 pullets of "190 eggor." The cockerels that headed these pens were sons of the original cock of the flock; but they were not mated to their sisters, but to their half sisters. All other stock on the place was sold except the three best laying hens, "196," "190," "193"; these were kept for out crosses the third season, and so were sent out to the farm to recuperate with the one cock bird. The fancier was more ski...ed, the second season, in feeding, and he attributes the

breeding pens, 3 laid over 200 each;

POULTRY BREEDERS' DIRECTORY.

BUY AND BE HAPPY—Single Comb Brown Leg-horn cockerels, 50 cents. Jim Busenbark, Eskridge, Kans.

BELGIAN HARES...

Belgian hare fry beats chicken, and a good breeding pair of hares will keep you supplied all the year round. I can supply you in the finest breeding stock at \$5.50 per pair; \$5 per trio, until further notice.

A. H. DUFF, Larned, Kansas.





You Can Hatch Chickens by the Thousand

The "ONLY INCUBATOR"

Which has no defects and has advantages over all other machines. You can raise the chicks in THE ONLY BROODER, which will not freeze, smother, or overheat the chicks. Write for Catalogue. Sold on 30 days trial. THE ONLY INCUBATOR CO., Box M, Lincoln, Neb

STANDARD POULTRY.

Barred Plymouth Rocks, White Plymouth Rocks, Partridge Cochins, Buff Cochins, Light Brahmas, Black Langshans, Sliver Wyandottes, White Wyandottes, Silver Spangled Hamburgs, Brown Leghorns, and Belgian Hares. All Our Breeding Pens of this season at Bottom Prices, also Spring Chicks. Prices now less than half of winter prices. Fine Exhibition and Breeding Stock of Rare Quality. Write Me Your Wants. Circular Free. A. H. DUFF, Larned, Kansas.

IT TAKES FIVE CATALOGUES Fity SUCCESSFUL Incubators & Brooders.

DES MOINES INCUBATOR COMPANY, 83, Des Moines, Iowa, or Box 83, Buffalo, N. Y.



one 204, one 202, one 216. These 3 pullets' daughters were the only pullets in the breeding pens that year. They were damed by 3 particular hens and were mated back to their grandsires. Their sire headed the other pen of their 3 "farmed out" granddams, and their dam was also mated to their sire in a third or separate pen. The surplus stock was sent to the farm, for the farmer's wife was beginning to get interested and wanted interested and wanted some of those world beaters. She got them; for during that winter and the next spring she sold more eggs than at any time of her farm experience. In fact, just twice as many as she had marketed for the winter previous and then the Minorcas were about 28 head shorter, as a flock,

than the scrubs she compared them to.

To return to the breeder. The 3
granddams laid on an average 184 eggs in their third season, and they were discarded, although the best cockerel they produced was saved to mate to the best 3 pullets of the third season's

From the "204 eggor" 4 pullets were From the "204 eggor" 4 pullets were raised that captured the record the fourth year; 1 pullet 208, one 222, one 206, one 209. These pullets will all be mated this year to a full brother of the "216 eggor," although the latter only produced 1 pullet that could lay 201 eggs per annum. All other pullets and hens and males were sent to the farm, for the farmer's wife except a pen of for the farmer's wife, except a pen of likely pullets left to supply eggs for this fancier's table.

The farmer's wife is overjoyed at the success of her flock of Black Minorcas in defeating all her neighbors in carrying eggs to market, and to say that the fancier is hot on the trail of

the 200-egg flock is expressing a sound thought of the writer.

Feeding played no small part in the raising and acre of these great layers. Nature's feeds were fed in winter in great abundance. Cut steamed clover was mixed with boiled beets and potatoes. Cabbage was hung from strings tied to the ceiling and green bone, fresh cut, was fed every other day in the mash troughs. Liquid lice paint was used on the roost poles. Lice powder was dusted freely among the fluffy feathers of each fowl wherever it was required. And a thousand other details that we have no time to enumerate were carefully attended. His poultry house is dropsided, lathed and plastered, with cement floor, which is kept clean by frequent removals of the soiled broken straw that the hens won't scratch in.

UTILITY IN STANDARD-BREDS. de writer's "200 eggors" are not yet as a flock up to the sought for number. The breeding of our females to standard requirements, and the working with show birds in their season quite handicapped our layers, yet we breed from only large healthy stock, which are good laryers in the extreme. The finest pen of breeders we owned were winners at the shows where exhibited, and during February they laid 26 eggs each, and in March 28 eggs, and totaling the year with 213 eggs each to their credit. This shows what can be done in the way of combining beauty and utility, and in the future we expect to eclipse this.

Had the pullets that we expected good results from had bad care as layers, been "starved to death" as growing fowls, and roosted in our brooders, they would not have given us these results to be proud of. We have found that the chick which grows its plumage similar to the Minorca was the quickest maturer and the best average layer.

THEN FOR THE 225-EGG HEN. A last word to the reader. When founding your 200-egg flock, make the breeding for eggs the chief object of advancement; housing and feeding are the necessary adjuncts to the produc-tion of eggs only. If you have the blood for laying bred in the hen, the care only makes it show itself in the number of eggs produced. Poultry Keeper tells you how to care for your fowls better than can the author, but be up and doing, for the line-bred 200egg hen is a possibility and her cultivation is one of the duties of the egg-farmer and fancier. Establishing the characteristics of the 200-egg hen is not entirely an easy matter and can only be done by judicious matings and selections for vigor and fecundity. Allow no direct out cross to hinder your progress and bear in mind that when once the two hundred mark is reached to set your peg a few steps farther and strive for the 225-egg hen. After your egg-bred pullet is properly molted and quartered, feed with care and practice the teachings of these columns.

American Royal Hereford Sale.

(Continued from page 929.)

Vashti Hesiod, owned by T. C. Sawyer; sold to John L. Anderson, for \$250.

Lily Princess 5th, with calf at side, owned by H. D. Martin; sold to John L. Anderson, for \$250.

by H. D. Martin; sold to John L. Anderson, for \$250.

Armel, owned by K. B. Armour estate; sold to T. F. B. Sotham, for \$775.

Mabel 3d, owned by S. J. Gabbert; sold to James A. Funkhouser, for \$230.

Meadow Lark, owned by A. E. Nutsker; sold to W. S. White, for \$160.

Minnie Walton, owned by W. N. Rogers; sold to Marshall Field, for \$290.

Lady Starlight, owned by Stanton Breeding Farm Company; sold to University of Nebraska, for \$425.

Gardeina, owned by J. A. Funkhouser; sold to F. E. Graham, for \$400.

Rowena, owned by P. R. Jones; sold to John Sarr, Canton, lowa, for \$250.

Belle Briton, owned by W. B. Waddell; sold to S. W. Combest, for \$240.

May, owned by E. H. Dancer; sold to Mrs. E. A. Jennings, McCracken, Kans., for \$150.

Favor 2d, owned by C. B. Smith; sold to B. Dixon, for \$150.

Dangle 5th, owned by Gudgell & Simpson; of the Cornish & Patton, for \$505.

Prairie Flower, owned by W. S. Powell; ld to Thomas White, Salina, Kans., for 45.

\$245.
Lena, owned by W. T. Stovall; sold to S. B. Combest, for \$190.
Pansy 2d, owned by H. A. Naber; sold to J. M. Taylor, for \$185.
Marie, owned by C. R. Hudspeth; sold to J. M. Taylor, for \$150.
Little Lady Hotspur, owned by E. H. Lewis; sold to J. M. Taylor, for \$150.
Vera, owned by Minier Bros.; sold to Cosgrove Co., Le Sueur, Minn., for \$305.
Carrie, with calf at side, owned by L. B. Chappell; sold to E. E. Wall, for \$500.
Estrela, owned by H. B. Watts & Son; sold to Estes & Watts, Midland, Tex., for \$305.

Estrela, owned by H. B. Watts & Son; sold to Estes & Watts, Midland, Tex., for \$305.
Ottle S., owned by T. C. Sawyer; sold to E. M. Harbor, Trenton, Mo., for \$155.
Belle Donald 25th, owned by W. H. Curtice; sold to Frank Rockefeller, Belvedere, Kans., for \$300.
Pearl, owned by J. M. Curtice; sold to R. S. Virtue, Windsor, Mo., for \$305.
Cecil, owned by William Hibbles; sold to J. M. Taylor, for \$135.
Bright Lass 16th. owned by Gudgell & Simpson; sold to W. S. Van Natta, for \$400.
Vina, owned by G. W. Dennis; sold to R. S. Virtue, for \$255.
Lovely 10th, owned by Z. T. Kinsell; sold to K. B. Armour estate, for \$175.
Alberta 2d, with calf at side, owned by K. B. Armour estate; sold to Vermillion H. Co., Vermillion, Kans., for \$485.
Quiet, owned by S. J. Gabbert, sold to Estes & Watts, for \$245.
Sliver Locks, owned by O. Harris; sold to Frank Rockefeller, for \$415.
Blue Belle, owned by Fred Eason; sold to G. W. Fadley, Horton, Kans., for \$200.
Lena, owned by H. D. Adkisson; sold to J. M. Taylor, for \$155.
Princess Beatrice, owned by J. C. Andras, Jr.; sold to Mrs. E. A. Jennings, for \$140.
Armour Rosebud, owned by Steward & Hutcheon; sold to J. D. Gaddy, Macon, Mo., for \$180.
Miss Monarch, owned by W. N. Rogers, Miss Monarch, owned by W. N. Rogers,

Hutcheon; sold to J. D. Gaddy, Macon, Mo., for \$180.

Miss Monarch, owned by W. N. Rogers; sold to J. H. Howell & Son, Emporia, Kans., for \$310.

Gold Cup 2d, owned by Harris Bros.; sold to J. M. Taylor, for \$210.

Lady Winsome, owned by Benton Gabbert; sold to C. F. Peterson, Parker, Kans., for \$310.

Beauty 6th, owned by Makin Bros.; sold to E. E. Wall, for \$175.

The American Royal Galloway Sale.

to E. E. Wall, for \$175.

The American Royal Galloway Sale.

On Friday morning the sale of Galloways took place in the stock yards sale pavilion. There was a very large audience of spectators and the interest in the sale kept up to the close. The bulk of the offering consisted of bulls, and outside of a few show animals the offering was in poor sale condition and did not compare with the Herrofords and Shorthorns as to sale-fix on the preceding days. The lack of condition and quality in much of the offering made the average seem low. Many breeders thought it was not a wise thing to make such a sale offering at this time, but the prices realized were considered satisfactory.

Thirty-five Galloways were sold, making a general average of \$134.14. Nearly two-thirds of the offerings were bulls—22 head averaging \$144.99. Thirteen cows and heifers a veraged \$117.31.

The top price was \$600, paid for Imported Woolfel, a prize-winning aged bull owned by C. N. Moody, Atlanta, Mo. Pugsley & Son, Genoa, Neb., were the purchasers. The top price on females was \$200, paid for Lady of the Lake, and calf, owned by C. N. Moody, Atlanta, Mo., and sold to Claude Atterbury, of the same place. I. B. & A. M. Thompson, Nashua, Mo. offered their prize-winning yearling bull, Badger of Nashua, which went to C. S. Sechrest, Lenexa, Kans., for \$300.

The sale was cried by Colonels Edmonson opened the sale with a short speech, in which he called attention to the high prices the Galloways were bringing in the beef markets, and appealed to the breeders present to stand up for their breed. During the sale the newly elected president of the association, Mr. C. B. Rowland, Rose Hill, Iowa, was introduced, and thanked the breeders for the honor conferred upon him. The new secretary, Robert W. Park, Kansas City, was also called on, and made a short address.

At the conclusion of the sale of pure breds, I. B. & A. M. Thompson offered at auction their prize show steer, a 2-year-old weighing 1,650 pounds. He was sold after spirited bidding, at \$15 pe

Velma of Nashua, owned by I. B. & A. M. Thompson; sold to J. T. Eaveland, Garden Grove, Iowa, for \$155.

Don of Dyke Creek, owned by G. M. Kellam & Son; sold to F. Hardesty, Richland, Kans., for \$106.

Dellie, owned by J. W. Byer; sold to J. C. Ashcroft, for \$105.

Snydur of Nashua, owned by I. B. & A. M. Thompson; sold to D. C. Kingsley, Ellis, Kans., for \$100.

Admiral of Red Cloud, owned by G. W. Lindsey; sold to J. S. Goodrich, Goodrich, Kans., for \$85.

Badger of Nashua, owned by I. B. & A. M. Thompson; sold to C. S. Sechrest, Lenexa, Kans., for \$300.

Ruth C. C., owned by J. W. Byers; sold to J. C. Ashcraft, for \$125.

Boliver of Clover Hill, owned by G. M. Keilam & Son; sold to J. S. Goodrich, for \$55.

Kate B., owned by J. W. Byers; sold to J. C. Ashcraft, for \$100.

Bob of Sugarbottom, owned by J. W. Byers; sold to C. S. Wood, Table Rock, Neb., for \$190.

Pride of Carnation, owned by J. W. Byers; sold to T. J. Smith, Bently, Kans., for \$95.

Lady of the Lake, with calf at foot, owned by C. N. Moody; sold to Claud Atterberry, for \$200.

Buford of Red Cloud, owned by G. M. Kellam & Son; sold to J. S. Meserve, Ellis, Kans., for \$25.

Cella of Clover Hill, owned by G. M. Kellam & Son; sold to J. S. Meserve, Ellis, Kans., for \$25.

Black of Red Cloud, owned by G. M. Kellam & Son; sold to J. F. Meserve, for \$50.

Bruce of Clover Hill, owned by G. M. Kellam & Son; sold to J. T. Eaveland, for \$35.

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Bruce of Clover Hill, owned by G. M. Kellam & Son; sold to E. W. Baldwin, Lakeview, Kans., for \$35.

Brodie of Clover Hill, owned by G. M. Kellam & Son; sold to C. N. Moody; sold to C. B. Rowland, Rosehill, Iowa, for \$105.

Ben Boy, owned by C. N. Moody; sold to C. B. Rowland, Rosehill, Iowa, for \$145.

Edna of Clover Hill, owned by G. M. Kellam & Son; sold to C. N.

Alice L., owned by J. W. Byers; sold to J. F. Meserve, for \$140.
Culfad of London, owned by J. W. Byers; sold to James Potter, Beulah, Kans., for \$70.

sold to James Potter, Beulah, Kans., for \$70.

Eagle of Red Cloud, owned by G. W. Lindsey; sold to Frank Ballard, Ballard's Fall, Kans., for \$140.

Dandy of Red Cloud, owned by G. W. Lindsey; sold to R. J. Traver, Leoti Kans., for \$115.

Bernard of Clover Hill, owned by G. M. Kellam & Son; sold to J. W. Batdorf, Wellsville, Kans., for \$120.

Butler of Nashua, owned by I. B. & A. M. Thompson; sold to J. W. Trotman, Comiskey, Kans., for \$150.

Duke of London, owned by J. W. Byers; sold to J. S. Goodrich, for \$90.

Imp. Woolfel, owned by C. N. Moody; sold to Pugsley & Son, for \$600.

Emily of Clover Hill, owned by G. M. Kellam & Son; sold to J. T. Eaveland, for \$100.

Semiramis, owned by C. N. Moody: sold

Semiramis, owned by C. N. Moody; sold to I. B. & A. M. Thompson, for \$150.

The American Angora Show and Sale.

The American Angora Show and Sale.

The second annual exhibit and sale by the American Angora Goat Breeders' Association was held in the second story of the Stock Yards pavilion, October 25-28, 1901. There was a notable increase in the attendauce and the enthusiasm of the visitors. The exhibition was on a much larger scale than last year, and the prices realized showed a very material increase over the first annual sale. At the first afternoon sale over \$7,000 was realized for the goats sold in less than three hours.

It is an interesting fact that only one of the pure-bred cattle sold at the stock yards this week brought more than 'Pasha-Columbia.'' This was the Shorthorn bull, "Inglewood," sold by Hanna & Company, of Dover, Kans., to Forest Bros. & Dunham, of Niles, Iowa, for \$1,850. "Southington," the great Hereford bull imported by the late K. B. Aromur, brought only \$1,005.

The show began Thursday in the section resrved for that purpose in the sheep pens at the Stock Yards. This year's show and sale has attracted nearly all the breeders in the United States, besides hundreds of farmers who are investigating the Angora boat-breeding industry with the view of entering into it. The enthusiasm displayed was remarkable. Besides the breeders and prospective breeders present, Secretary Wilson sent George F. Thompson from Washington, D. C., to represent the government, and to make investigations into the growing new industry. Several Eastern manufacturing companies of mohair goods were present. George G. Emery, representing the Sanford Mills, of Sanford, Me, addressed the breeders, and told them of the many uses that that could be made of Angora goats, and their value from a manufacturing point of view.

The expert jury of awards consisted of J. R. Stanley, Plattsville, Iowa; J. Murray Hoag, Maquoketa, Iowa; and C. M. Beals, Lewistown, Ill.

The prizes in all classes, except sweepstakes, were, nrst, \$50; second, \$30; third, \$20; and fourth, \$10.

The awards were as follows:
Buck, 2 years old and under 2, 23 entri

His Life Threatened

EXPERIENCE OF A TROOPER IN THE EIGHTH OHIO CAVALRY.

The Incident Occured When the Regiment was at Camp Charleston and Narrowly Escaped a Fatal Ending.

The chief bugler of the Eighth Ohio Cavalry in the stirring days of the civil war was Thomas J. Patton, who now lives, at 70 years of age, in Urbana, Ohio. As in the case of many others his life was threatened in after years by the results of an almost forgotten accident. While his regiment was at Camp Charleston, Mr. Patton was thrown from his horse, sustaining a sprained ankle and the fracture of three ribs. In an interview just published by the Champaign Democrat, of Urbana, he says:

"It was almost eleven years ago that I was stricken with partial paralysis, the result of my fall at Camp Charleston. I lost my appetite, my kidneys were affected and I was confined to my bed under medical treatment. The disease affected my right hand so that I could not lift it. I suffered an almost entire loss of memory and could not talk except with great effort."

"But you seem well and hearty now," said the reporter. "How did you regain

your health?"

"I am well and hearty," answered the veteran. "It came about in this way. Four years ago I read in a newspaper of a case similar to mine that had been cured by Dr. Williams' Pink Pills for Pale People, and I purchased some.
They are the best medicine in the
world. Not only did they help my paralysis but they built up my health in
every way. Since taking them I have not been troubled with catarrh, from which I had before been a constant suf-ferer. I feel better and brighter now than I have for years

It is a well established fact that Dr. Williams' Pink Pills for Pale People are an unfailing specific not only for partial paralysis but for locomotor ataxia, St. Vitus' dance, neuralgia, nerv-ous headache, rheumatism, anæmia, after-effects of the grip, palpitation of the heart, pale and sallow complexions, and all forms of weakness either in male or female. At all druggists, or direct from Dr. Williams Medicine Co., Schenectady, N. Y., 50 cent sper box; six

boxes for \$2.50.

Gwin; third, E. L. Witt & Son, Montell, Texas; fourth, F. O. Landrum.

Texas; fourth, F. O. Landrum.

Doe, 3 years old and over, 12 entries.—
First, C. P. Bailey & Sons; second, Harris & Baylor; third, N. A. Gwin; fourth, Harris & Baylor; third, N. A. Gwin; fourth, Harris & Baylor; third, J. J. Gentry, Montell, Texas; fourth, Stephen & Carey, South Omaha, Neb.

Doe, 1 year old and under 2, 17 entries.—
First, C. P. Bailey & Sons; second, Mrs. M. Armer, Kingston, N. M., third, Mrs. M. Armer, Kingston, N. M.; fourth, Harris & Baylor.

Doe kid, under 1 year, 20 entries.—First, C. P. Bailey & Sons; second, J. J. Gentry, third, W. G. Hughes & Co.; fourth, Harris & Baylor.

Best display of bord conditions of the second of the s

Early W. G. Hugnes & Co.; fourth, Harris & Baylor.

Best display of herd, consisting, of 1 buck, 5 does, and 5 kids, 10 entries.—First, C. P. Bailey & Sons; second, N. A. Gwin; third, Mrs. M. Armer; fourth, R. C. John-

third, Mrs. M. Armer; fourth, R. C. Johnson.
Best display of Angora weathers, Mohair and Angora venison to be basis considered, 7 entries.—First, W. H. Woodlief, Woodlef, Kans.; second, F. E. Crane, Ottawa, Kans.; third, W. G. Hughes & Co., Hastings, Texas; fourth, Wyatt Carr, Collins, Iowa.

lowa.

Best display of 50 does of any age, owned by one exhibitor, 10 entries.—Eirst, Mrs. M. Armer; second, Eddy Bros., Weldon, Iowa; third, Carey Bros., South Omaha, Neb.; fourth, R. C. Johnson, Lawrence, Kans. Best sweepstakes buck of any age, 10 entries.—Silver cup to C. P. Balley & Sons., of San Jose, Calif., on Pasha-Columbia.

Best doe of any age, 8 entries.—Silver cup to C. P. Balley & Sons, on American Princess.

Best doe of any age, cup to C. P. Bailey & Sons, on American Princess.
Special, by Stock Yards, \$100; best display, number considered.—W. G. Hughes & Company.
Special, by Transit House, \$25; best display of does, number considered.—J. C. Johnston.
Special, by White & Deyboos, \$15 gents' traveling valise.—W. G. Hughes & Co.
ANGORA SALE.

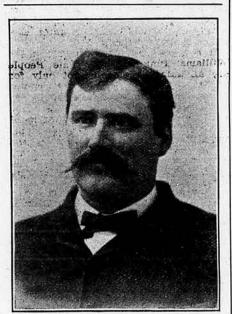
The Angora sale opened October 25, with a splendid attendance. Addresses were made by J. R. Stanley, 'chief inspector of the association; Col. Wm. L. Black, of Fort McKavett, Texas; and Mr. Geo. E. Emery,



proprietor of the Sanford mills, Sanford, Maine. The auctioneers, Colonels Edmonson, Sparks, and White, did most effective work, giving entire satisfaction to both consigners and buyers.

The principal sales of the first two days were as follows:
Buck, 3 years; owned by C. P. Bailey & Sons, San Jose, Calif.; sold to Mrs. M. Armer, Kingston, N. M., for \$1,050.
Doe, 4 years; C. P. Bailey & Sons; to F. H. Mastin, Mastin, Kans., for \$255.
Twenty-four does, 2 and 3 years; Mrs. M. Armer, Kingston, N. M.; to J. A. Moberly, Windsor, Ill., for \$17 per head.
Forty-eight does, 1 and 2 years; J. J. Gentry, Montell, Texas; to T. H. Mastin, Mastin, Kans., for \$11.50 per head.
Buck, 2 years; F. O. Landrum & Son, Laguna, Texas; to A. E. Haughey, Columbia, O. T., for \$150.
Kid; A. J. Knollin, Kansas City; to Fred Deiss, Minooka, Ill., for \$15.
Seventeen does; N. A. Gwin, Lawrence, Kans.; to Richardson Bros., Dubuque, Iowa, for \$9 per head.
Fifty does, 3 years and up; George B. Campbell, Little Blue, Mo.; to Ed. Cole, Kenton, Ohio, for \$7.50 per head.
Buck kid; J. W. Troutman, Comiskey, Kans.; to M. L. Haskell, Galord, Kans., for \$16.
Yearling buck; C. P. Bailey & Sons; to

Kenton, Ohio, for \$7.50 per head.
Buck kld; J. W. Troutman, Comiskey,
Kans.; to M. L. Haskell, Galord, Kans.; for
\$16.
Yearling buck; C. P. Balley & Sons; to
R. C. Johnston, Lawrence, Kans., for \$190.
Firty does, yearlings; Eddy Bros., Weldon, Iowa; to Ed. Cole, Kenton, Ohio, for
\$10.25 per head.
Buck, 2 years; J. W. Troutman, Comiskey, Kans.; to J. M. Johnson, Monroe City,
Mo., for \$36.
Twelve does; W. G. Hughes & Co., Hastings, Texas; to C. E. DeGraff, Notch, Mo.,
for \$11.25 per head.
Doe, yearling; C. P. Balley & Sons; to J.
W. Johnson, Comiskey, Kans., for \$11.50.
Fifty-seven does; Mrs. M. Armer, Kingston, N. M.; to C. Goss, Boone, O. T.,
for \$13.75 per head.
Twenty-five does, 1 and 2 years old; Carey
Bros., Omaha; to J. M. Johnson, Monroe
City, Mo., for \$1 per head.
Twenty-five yearling does; Stephens &
Carey, Omaha; to Johnson & Crane, Ottawa, Kans., for \$11.50 each.
Buck, 6 years; Ludlow & Co., Lake Valley, N. M.; to A. E. Haughey, Columbia,
O. T., for \$105.
Twenty does, 2 and 3 years old; A. J.
Knollin, Kansas City; to F. W. Pollman,
Jr., Lacygne, Kans., for \$10 per head.
Buck, yearling: D. C. Taylor & Son, Lake
Valley, N. M.; to J. M. Johnson, Monroe
City, Mo., for \$135.
Forty-six does, 2 and 3 years old; J. Z
McAllster, Weldon, Iowa; to Ed. Cole, Kenton, Ohio, at \$8.75 per head.
Buck, 1 year old etaoinshrdleutaoins.etaoin
Buck, 1 year; N. A. Gwin, Lawrence,
Kans.; to A. C. Aspenwall, Pompton Lake,
N. J., for \$510.
Thirty-five does, 2 and 3 years old; A. J.
Knollin; to W. W. & T. O. Withey, La
Crosse, Wis., for \$9 per head.
Twelve does, 1 year old; J. Z. McAlister,



W. T. McINTIRE,

Secretary of the Americ an Angora Goat Breeders Association, also the champion promoter of the industry.

weldon, Iowa; to Johnson & Crane, Ottawa, Kans., for \$950 per head.
Twenty-seven does, 2 and 3 years old; Stephens & Carey, Omaha; to J. W. Troutman, Compiskey, Kans., for \$10 per head Buck kid; sold by F. O. Landrum, Texas, to J. M. Stewart, Lewiston, Ill., for \$125.
Buck, yearling; sold by R. C. Johnson, Lawrence, Kans.; to Vivian D. Ely, Carrolton, Mo., for \$50.
Buck, yearling; sold by W. G. Hughes, Lawrence, Kans., to Vivian D. Ely, Carrolton, Mo., for \$75.
Buck, yearling; sold by N. A. Gwin, Lawrence, Kans., to Eddy Bros. & McAlester, Weldon, Iowa, for \$180.
Buck, yearling; sold by R. C. Johnson, Lawrence, Kans., to D. D. Spencer, Kickapoo, Kans., for \$180.
Buck, yearling; sold by R. C. Johnson, Lawrence, Kans., to D. D. Spencer, Kickapoo, Kans., for \$185.
Buck, syears old; sold by Mrs. M. Armer, Kingston, N. M., to R. C. Johnson, Lawrence, Kans., to C. Johnson, Lawrence, Kans., for \$155.
Buck, 3 years old; sold by Mrs. M. Armer, Kingston, N. M., to Lee Emerick, Lone Tree, Mo., for \$100.
Buck, yearling; sold by F. O. Landrum to the Onerdonk Angora Goat Company, Lamy, N. M., for \$200.
Doe; sold by C. P. Bailey & Sons, San Jose, Calif., to Mrs. M. Armer, Kingston, N. M., for \$200.
Doe, 2 years old; sold by Harris & Baylor, to Aubry Gist, Carlsbad, N. M., for \$250.
Buck, 2 years old; sold by T. H. Mastin, Kansas City, to J. H. Alderson, Eversonville, Mo., for \$38.
Buck, yearling; sold by R. C. Johnson, Lawrence, Kans., to Richardson Bros., Dubuque, Iowa, for \$38.
Buck, kid; sold by Harris & Baylor, to Aubury Gist, Carlsbad, N. M., for \$55.

Buck, kid; sold by Witt & Son, Montell, Texas, to Ludlow & Co., Lave Valley, N. M., for \$70.

Buck, yearling, sold by R. C. Johnson, Lawrence, Kans., to J. H. Black, Hurdland, N. M., for \$30.

Buck, 4 years old; sold by T. H. Mastin, Kansas City, to Nick Johnson, Ottawa, Kans., for \$35.

Doe, 2 years old; sold by C. P. Bailey &

This sale will be held at Kansas City on Wednesday, Nov. 6, 1901. Owing to Mr. Cowan's conection with the American Shorthorn Breeders' Association, which will require his entire time, he finds it necessary to close out his entire herd. Look up the advertisement in this issue and get your catalogue. Your presence is earnestly desired at this sale. Parties attending can leave in time to reach the great sale at



Sons, San Jose, Calif., to Onderdonk L. D. Company, Lamy, N. M., for \$160.

Buck, kid; sold by F. C. Landrum, Laguna, Texas, to J. W. Troutman, Comiskey, Kans., for \$65.

Doe, 3 years old; sold by C. P. Bailey & Sons, San Jose, Calif., to Onderdonk L. D. Company, Lamy, N. M., for \$125.

Buck, 2 years old; sold by W. G. Hughes, Hastings, Texas, to S. D. Moberman, Ottawa, Kans., for \$41.

Buck, 4 years old; sold by F. O. Landrum, Laguna, Texas, to Richardson Bros., Dubuque, Iowa, for \$51.

Buck, Pasha—California; sold by C. P. Bailey & Sons, San Jose, Calif., to R. O. Johnson, Lawrence, Kans., for \$26.

Buck, Sciplo; sold by Ludlow & Co., Lake Valley, N. M., to Vivian D. Ely, Carrollton, Mo., for \$50.

Buck, kid; sold by Witt & Son, Montell, Texas, to A. E. Haughey, Columbia, O. T., for \$30.

THE ANGORA BANQUET.

THE ANGORA BANQUET.

THE ANGORA BANQUET.

The members of the American Angora Goat Breeders' Association, together with their friends and members of the press, attended the first annual banquet at the Transit House, Saturday night, October 26. There were 152 in attendance.

President George M. Walden, of the Kansas City Live Stock Exchange, presided in a brief speech, he confessed that he had at first had some doubt as to the success of the Angora, but that he now believed that the goat had come to stay. He was followed by Colonel W. L. Black, of Texas, who told of the use mohair could be put to in the manufacture of army clothing, tents, and sails, the cloth having, as he said, greater durability than cotton, while weighing only one-third as much.

Among other speakers were F. O. Landrum; J. R. Stanley; D. C. Taylor; Mr. Emery, proprietor of the Sanford Mills, Sanford, Maine; Mr. Thompson, of the United States Department of Agriculture; R. C. Johnston, of Lawrence, Kans.; and Colonel Stewart, of Lewistown, Ill. The menu follows:

Radishes. Celery. Radishes. Pickles.
Angora Broth, American Style.
Fried Angora . Oysters. Tomato Sauce.
Corn Papas de Colorado.
Angora Chops a la moda de en Casa.
Frijales Virdes. Chili Con Carne de Cabra.
Angora Venison, Roasted Mountain Style.
Head of Lettuce.
Angora Plush Ice Cream.
American Protection Sauce.
Chees and Coffee.
Pontet Canet 1891.
Cigars.
Buenos Noches. Celery.

Gossip About Stock.

Snyder Bros., Winfield, Kans.. made a show of Shire, Percheron, and road horses; J. F. Stodder, Burden, Kans., made an exhibit of Shorthorn cattle; and H. E. Lunt, breeder of Poland-Chinas, Burden, Kans., constituted the trio of Kansas exhibitors who made a sweeping success at the Grant County Agricultural Fair at Deer Creek, Okla., October 15-18.

Chas. Southward, Wichita, Kans., has gone to New Mexico, where he has purchased 4,000 head of sheep. He will bring them back to Wichita and fatten them on the growing wheat fields. This is the first time sheep were ever alowed to pasture on growing wheat, but Mr. Southward claims it is a paying arrangement. He says other Kansas farmers will adopt the plan should it prove feasible.

Poland-China breeders should know that from our recent advertiser, D. A. Kramer, Washington, Kans., they will find stock that will be a splendid out-cross for the Tecumseh bred stock. It is significant to remember the fact that Mr. Kramer guarantees all stock sold. To the writer he said: "I could sell my surplus stock in a single day provided the buyers could see it." Write him for full particulars.

The annual meeting of the Missouri State Swine Breeders' Association will be held at Chillicothe, Mo., December 9 and 10. This call is made by authorization of the State secretary, F. H. Schooler, Rockport, Mo. All hog men in the State are urged to attend this meeting as it will be full of interest. Some of the best posted hog breeders in the State have been requested to address the meeting and the program is sure to be a beneficial one.

A Shorthorn event of more than ordinary importance is the dispersion sale of the splendid herd of Shorthorns long owned and bred by Mr. B. O. Cowan, New Point, Mo.

Chicago, on Nov. 7, to be held by W. D. Flatt, Hamilton, Ont.

Secretary F. D. Coburn has purchased for the Kansas State Agricultural College 4 pure-bred Jerseys from H. C. Taylor, of Orfordville, Wis. These Jerseys are full of the Combination blood, the blood that produced Brown Bessie, Merry Madden, and Ida Marigold, the 3 cows that triumphed over all other competitors of all dairy breeds at the Columbia World's Fair. The bull is the grandson of Diploma, the great bull that sired 55 cows that made high records, and he also comes from the same strain as Eurotas, who gave 778 pounds of butter in a year. The mother of the college bull gave 16 pounds of butter in a week, while the average scrub cow gives 70 pounds in a year. The three helfers are rich in Combination blood and in other leading butter strains, one helfer tracing to Major Apple Pogis, who has won more prizes in the show ring than any other bull; another helfer is a granddaughter of a cow giving 23 pounds of butter in a week.

ter of a cow giving 23 pounds of butter in a week.

The attention of every one interested in Shorthorns is directed to the forthcoming sale of Purdy Bros., Harls Mo., on Tuesday, Nov. 12; and B. L. Dawdy & Co., Harrington, Kans., Nov. 13. Both sales will be held at the new sale pavilion at the Stock Yards. Last week notice was given regarding the Dawdy consignment, and this week we call attention to the illustration of Lot 1 in Purdy Bros. catalogue, of Golden Knight of Enterprise. This is a 3 year old herd bull which will be a great herd headed for some first class establishment. Quite a number of the young things are sired by him. He is a bull of vigor and substance of the low down sort and has proven himself an exceptional sire of show animals as well as being one himself. This will be the first public sale held by this enterprising firm. An examination of the catalogue, as well as the cattle, show that their first offering will certainly be a reputation making one, as the breeding is of the most fashionable strains of the day and the individual excellence is uniformly of a very high character. Among the families represented are Cruickshank Secrets, Victorias, Orange Blossoms, Lancasters, Lovelys, and numerous other select strains. This firm have been known to the public by their praiseworthy and somewhat sensational displays of the consignments made at the national shows and sales. They are simply top-notchers and yet they are simply samples of their whole herd and the offering at the Kansas City sale. In the opinion of breeders familiar with their herd their offering has never been excelled by any ever made in the Kansas City sale pavilion. Look up their advertisement and get catalogue without delay.

The veteran importer and breeder of Percheron horses, M. L. Ayres, Shenandoah, Iowa, is back in Kansas Farmer advertising columns again with a capital string of good young horses that he is going to sell worth the money. There are full 70 young horses from which to make selections. The Ayres' importation arrived at the Shenandoah stables about Oct. ist, and he never before had his horses landed in such fine shape as now. They came through from New York as fast express, and a cleaner, finer, better appearing string of bouncing big young stallions than these can not be found. They are not "chunks," but big, stretchy young horses that develop size, bone, and fine showy action. No man is better acquainted with the demands of horsemen from one end of the country to the other than is Mr. M. L. Ayres. He has a wide acquaintance in France, and buys his horses in the Perche country at first hands. His old customers reserve the good ones for him, and when we simply say that he brought a first class string this time it is just stating the naked fact in the case. There are 30 of these 3-and 4-year-old imported horses now in the Ayres stables at Shenandoah, and it may be of interest to say incidentally that there is a big proportion of blacks in this fine string. It is not too much to say either that there are horses here fit to go into the best studs in the land. Mr. Ayres makes his invitation a general one to horsemen to visit his stables and see for themselves the advantages of selecting young stallions from among a barn full of good ones. Don't forget that Mr. Ayres is also a breeder of the very highest type of Percheron horses to be found on American soil. He has 2 of these young stallions just coming to the age for strong and vigorous service. He takes a keen delight in showing these fine 2- and 3-year-olds to his friends and customers. Go and see them. A day at the



Nobility Recommends Nervine.

The above portrait is that of Countess Mogelstud, of Chicago, Ill., whose gratitude for the benefit received from the use of Dr. Miles' Nervine prompted her to make this statement:

"It affords me great pleasure to add
my testimony to the very excellent
merits of Dr. Miles' Nervine. Although
I am past 80 years of age I find it
soothes the tired brain, quiets the irritated nerves and insures restful sleep.
I never feel contented without a bottle
of it in the house." Gratefully yours,
CHRISTIANA MARIA,
Countess Mogelstud.

Dr. Nervine

is a nerve tonic and strengthbuilder that starts right in restoring health immediately.

Sold by all Druggists. Dr. Miles Medical Co., Elkhart, Ind.

Ayres stables makes you want to stay long-er. It is the old time hospitality you will find at the Ayres establishment. Please note the advertisement in Kansas Farmer and mention same when you write Mr. Ayres on horse matters.

Have You Hogs?

All our subscribers who own hogs should read Blooded Stock, Oxford, Pa. It is a first-class swine paper. stamp for sample.

The Nickel Plate Road

The Nickel Plate Hoau
will sell tickets each Tuesday, Thursday, and
Saturday during October to Buffalo Pan-American Exposition and return, at \$6.00, good in
coachas; return limit 5 days from date of sale.
Tickets with longer limit at slightly increased
rates. Three through daily trains. Chicago
Passenger Station Van Buren St. and Pacific
Ave. City Ticket Office, 111 Adams St., Chicago.
(No. 35)

If You Wish to Sell Your Farm,

No difference where located, or if you wish to buy a farm or business of any kind it will pay you to give full particulars and write to Exchange, L. Box 6, Erie, Ill.



106-114 Third Ave. North. MINNEAPOLIS, MINN-

We Pay Freight to Kansas City.

OLD RELIABLE ANTI-FRICTION 4-BURR MOGUL MILL.



No gearing; no friction; thousands in use. Four-horse mill grinds 60 to 80 bushels per hour; two-horse mill grinds 30 to 50 bushels per hour. We make a full line of Feed Mills, best ever sold, including the

Famous Iowa Mill No. 3, for \$12.50. Also Feed Steamers, Farm Boilers, and Tank Heaters. Send for free catalogue. Manufactured and sold by the

IOWA GRINDER & STEAMER WORKS, Waterloo, Iowa.

In the Dairy.

Conducted by D. H. Otis, Professor of Dairy Hus-bandry, Kansss Experiment Station, Manhattan, Kans., te whom all correspondence with this department should be addressed.

Kansas State Dairy Association Meets at Manhattan.

The Kansas State Agricultural College has arranged for a five weeks judging school during the winter term. One week (March 3-8) will be devoted to week (March 3-8) will be devoted to judging dairy cattle. Arrangements have recently been completed to have the Kansas State Dairy Association meet at Manhattan March 4, 5, 6, and 7 of this week. The plan is to have the annual recursor of former dairy classes. annual reunion of former dairy classes at the same time. All visitors will be allowed equal privileges with the students in the judging room. Special programs and entertainments will be arranged for this week, including the best talent in the State. It is also ex-pected that able dairymen outside of the State will be in attendance and present papers on timely subjects. No effort is being spared to make this meeting a grand success and this concentra-tion of dairy interests will undoubtedly make March 3 to 8 the most notable week along dairy lines in the history of D. H. O. the-State.

Successful Institute at Douglass.

The first farmers' institute at Douglass, Butler County, October 19, was a success. The business houses were decorated with flags, the band was out in full force, and the town people gave every aid possible. A large room in the high school building was well decorated with flags, pictures, and exhibits of farm products. Those on the program there on time and took part heartily. Mr. Wm. Hilton gave a very interesting report on a year's results he had obtained with 8 head of cows, by selling the milk to the creamery. The results are summarized as follows:

32,067 pounds milk delivered to creamery Seven calves at \$15	\$288.12 105.00 25.00
Total	138.60
Profit from herd	267.52
Much interest was manifested	and

many questions asked on all phases of agricultural subjects. Prof. Edith Mc-Intyre, of the Domestic Science Department of the agricultural college, gave a very pleasing and instructive address on the preparation and cookery of foods for the human family. J. M. Satterth-waite gave a pleasing talk on the rela-

tion of domestic science to dairying.

Much credit is due to Hon. J. M. Satterthwaite, one of the regents of the agricultural college, and Mr. Barnes, the skimming-station operator of Douglass, for the success of this institute. A permanent organization was formed and officers elected to arrange for next D. H. O. year's program.

Will a Young Man Live Behind the Times?

E. H. WEBSTER.

I recently heard of a young man who had given up the idea of going to col-This young man lives on a farm and intends to be a farmer. Through some influence he has been made to believe that a college education unfits a man for the farm and that after taking such a course he will have tastes developed which will not correspond with his farm surroundings when he returns again to take up the duties of such a This young man and his advisers are living fifteen to twenty years behind the times. His ideas date back to the time when law, medicine, and the ministry were the only things thought of for college men.

Our agricultural colleges to-day are reaching out for the young men who expect to stay on the farm. The demand pect to stay on the farm. of the times is for educated farmers, educated along the lines of thought and work they expect to follow.

Dairy farming is prominent to a great er or less extent on every well managed farm. The man who is going to make tue most from his feed, his cows, and

his dairy products must be an educated man. That is, he must have as general an education as is possible for him to get and a special education along the line he expects to make his major work and from which he expects to derive his income.

The requirements of the dairy cow must be made a special study and then his arrangements and rotation of crops planned to meet these requirements. This involves study along the lines of agricultural chemistry, soil physics, field crops, their growth and requirements, animal nutrition—which involves the chemical composition, digestibility and palatability of feeds, live stock breeding and feeding. Along with this must go a thorough knowledge of handling, stabling, and milking of his cows in a general way so as to get the greatest returns from the least outlay.

If the dairy farmer expects to manu-facture his own milk into butter and cheese there opens up before him another line of work equally as important as the foregoing. He must have a thorough knowledge of buttermaking and cheesemaking. This involves an ex-haustive study of dairy chemistry, bacteriology, and dairy machinery. He must know how to handle starters, rip en cream, and how to meet the market demands for salt and color in his prod-ucts. All these must the dairy farmer know if he is going to reach the high est point of success in his calling.

Will any farm boy as a young man say that he is equipped with all this knowledge without having had access to an agricultural college? A few may be smart enough to pick things up from the dairy papers and from their experience in actual practice, but how many

Will any young man say that a four years' course in college, studying these very things, will unfit him for farm work? We may with as much truth say that the doctor will be unfitted for his career of medicine by taking a four years' course in a medical college as to say that a farmer will be unfitted for farming by taking a four years' course in agricultural training.

The very life and success of the dairy farmer of the future will depend upon his knowledge of the science of his work. This knowledge can be best and quickest gained in the training of our agricultural colleges.

Ripening Cream. M. H. MATTS.

There are three ways to ripen cream (1) by letting it stand under natural atmospheric conditions above 60° F. by heating to a temperature suitable to the formation of lactic acid (by the growth of lactic acid bacteria ripening cream should never fall below 55° F. and also not continue in the state of ripening for more than two days, as bitterness will result from the long exposure to the cold); and (3) by the use of a starter. The mixing of cream of different ages is not a very good plan and should not be done if it can be helped. The cooling of ripened cream is very important, and there are various ways by which it can be accomplished, though the hardest task is to cool a large vat in a very short time. When the cream has started to ripen stir about every thirty minutes for three or four hours and take the acidity and temperature frequently. By careful, persistent watching and practice the ripening of cream can be kept under control; the signs of sufficient ripeness can generally be told by an expert by the taste, smell, and general appearance of the cream, but to be accurate a test should be made with Manns' or Far-ringtons' acid test and should contain an acidity of between .5 and .7 per cent to be ready for churning, though to proauce a gilt edge butter it should contain .65 per cent according to Professor Mc-

Feed in the Right Proportion. ROSCOE WHITE.

Kay.

An important point to consider in making the dairy business pay is the feed of the cow. The cow should have succulent food and as much variety as it is possible to provide for her. get best results you must give her a bal-anced ration. A milch cow needs feed with lots of protein and not as much fat as the beef cattle require. In making a balanced ration it should consist of foods not too laxative and not too constipative, and should be made of laxative foods combined with some constipative food to equalize the ration. The food should not be all grain nor all hay. The hay should be put up in the best condition possible and not let stand until it gets hard and stemy, but should be cut while yet green as this gives it a more succulent character.

Every dairyman should have a silo

HIGHEST AWARD CREAM SEPARATORS **BUFFALO EXPOSITION.**

Just as in the case of every representative exhibition or other contest since the invention of the Cream Separator twenty years ago, the De Laval machines have maintained their supremacy at the Pan-American Exposi-

tion, Buffalo, having received the Gold Medal on Cream Separators. This is the highest and only award of its kind on cream separators. One other make of machine has received a Silver Medal, and another concern a Gold Medal for its combined exhibit of cream separators, Babcock testers, churns, and other apparatus. With characteristic advertising honesty, the latter concern is now claiming this Gold Medal to be an award to its separators.

OTHER GREAT EXPOSITIONS.

The supremacy of the De Laval machines at Buffalo is a continuation their triumphant record at all previous great expositions. At the World's Fair, Chicago, in 1893, they received the Gold and only medal awarded by the regular jury of awards and were the only separators used in the Model Dairy. At Antwerp in 1894 and at Brussels in 1897 they received the Grand Prizes or highest awards. At Omaha in 1898 they received the Gold Medal, and again at Paris in 1900 the Grand Prize or highest award.

DISGRUNTLED COMPETITORS.

All kinds of lying and misrepresentation upon the part of disgruntled would be competitors and imitators can not change or detract one iota from any one of these facts.

THE DE LAVAL SEPARATOR CO.

CHICAGO.

1102 ARCH STREET, PHILADELPHIA.

103 & 105 MISSION STREET, SAN FRANCISCO.

General Offices:

74 CORTLANDT STREET, NEW YORK.

327 COMMISSIONERS STREET, MONTREAL.

75 & 77 YORK STREET, TORONTO. 248 McDermot AVENUE, WINNIPEG.

have green feed through the winter. This makes a very succulent feed for the cows and is about the cheapest way of putting up feed. A cow fed about 30 or 40 pounds of ensilage a day will give excellent results. During the summer the cows get a good balanced ration while running on pasture, the pasture grasses are succulent food and have the protein and fats in about the right proportions. This is why the cows generally give a larger quantity of milk than through the winter, so if you could manage to feed through the winter as near ly a balanced ration the milk flow would keep up and not decrease as the winter came on. Therefore every dairyman would be well paid by being careful to give the cows the different feeds in the

Points to Consider in Compounding the Ration.

right proportion to the protein and fats.

W. E. REYNOLDS.

A balanced ration is a combination of farm feeds containing the various nutrients in such proportion and amount as will nurture the animal for twenty-four hours, with the least waste of nutrients.

In calculating rations for the dairy cow we must consider the number of pounds of feed, the number of pounds of dry matter, digestible protein, carbohydrates, fats, the number of calories or heat units produced by the feed, the proportion of the roughage to the concentrates, and whether the feed is constipative or laxative. The number of pounds of feed will of course vary with the nature of the feed, size and capacity of the cow, etc. With the ordinary cow under ordinary conditions the amount of feed will generally be about 30 to 40 pounds, consisting of 40 per cent concentrates and 60 per cent roughage. Where such bulky feeds as silage are fed the

and put up his feed as silage so as to ration may contain as high as 50 pounds of roughage with a very small amount of concentrates. The ration for the or-dinary cow should contain about 24 pounds of dry matter.

Using Tact at the Weigh-Can.

H. A. RICHARDS.

The man at the weigh-can should be very clean in every respect, not only with his milk utensils, but with all the machinery and the entire building. He should also be honest and deal fair with

To make cows pay, use Sharples Cream Separators-Book" Business Dairying" and Catalogue 287 free. West Chester, Pa.





Notice to Dairymen

If you are thinking of buying a Cream Separa-tor, write us_or catalogue and information. We manufacture the best machine on the market

DAVIS CREAM SEPARATOR CO. 88-90-92 W. Jackson St., CHICAGO, ILL.

Dairy and Farm Short Courses.

Kansas State Agricultural College, January 7 to March 28, 1902

SPECIAL FEATURE: THE JUDGING SCHOOL.

Poultry, February 17 to 22; Instructor, C. H. Rhodes. Beef Cattie, February 24 to March 1; Instructor, John Gosling. Dairy Cattle, March 3 to 8; Instructor, T. A. Borman. (State Dairy Association Meets at Manhattan, March 4 to 7.) Swine, March 10 to 15; Instructor, Geo. W. Berry. Horses, March 17 to 22; Instructor, J. W. Robison.

F Every Farmer and Farmer's Boy Invited.

For full particulars, Pres. E. R. NICHOLS, Manhattan, Kans.

everybody, do not stop on just telling them; if they do not believe what you tell them, show them. Convince them in a kind way that you are right and they will soon learn that they can trust you in other things. The weigh-can man should be able to answer any question that the farmers might ask him in the line of farming. He should know how to plant, when to plant, where to plant, and how to prepare the soil for the different kinds of seeds. He should also know how to cultivate the plants after they come up, how to preserve the moisture in the soil, and how to keep the weeds down. After the crop has grown he must know how to reap it and also to take care of it after it is reaped.

When you are instructing some of them do not try to tell them that you know it all; ask them questions and find out what their opinions are on the subject whatever it may be. You will have to go at some of your patrons in a round about way or they will be pretty apt to pull back, but if they do just keep at them in a kind way, even if they do call you a crank on some things.

Electricity and Water-power in Cali-

Electricity generated by water seems to be the destined cheap power for California and for other portions of the arid West where coal is scarce or too expensive for profitable use. The conditions in California are particularly favorable for rapid advance in this direc-tion. They are briefly: First, the high price of fuel; and second, a fortunate combination of favorable conditions of climate, topography, and water resources. By reason of these conditions California has made an enviable name for itself in the last twelve years by its energy and enterprise in the development and transmission of electric pow er, and still holds a position among the foremost in this regard.

The coal used in southern California comes from Alaska, British Columbia, New Mexico, and even Australia, and soft coals sell for from \$6 to \$10 per ton. This almost prohibitive price for fuel, while it has made power very expensive and greatly retarded the manufacturing progress of the State, has also given a strong impetus to water and electrical advancement. The advantages California lacks in coal deposits and prices, it possesses in a marked degree in other respects. It includes within its boundaries high, longitudinal mountain ranges, which are snow capped throughout the year, and from which flow numerous streams of very heavy gradients furnishing ideal power for the operation of electrical machinery. The general climate conditions of the State are also an aid to this development. The average low relative humidity of the atmosphere greatly aids in the transmission of the electric current by permitting a high order of insulation of the In this way power is transmitted over long distances, considerably farther than elsewhere in this country. A notable instance of this is the power plant on the Yuba River, in the Sierra Nevada Mountains, where electricity is generated which operates the street cars of Oakland, 140 miles away. Power has also been used over the same line at San Jose, a distance of 190 miles from the generating plant. This is said to be the longest line of power transmission in existence.

There are a number of other interest-ing electric plants in California besides that on the Yuba River. One on the North Fork of the San Joaquin River, in the east central part of the State, supplies power for light and general purposes to the city of Fresno and surrounding towns distant about 70 miles. On the different branches of the Kern River there are several plants, some of which are intended to furnish power for the city of Los Angeles, situated 108 miles away. To the San Antonic Light and Power Company, however, belongs the credit of the erection of the first plant for the long distance transmission of electricity in the United States. In 1892 current was delivered over the lines of this company to the cities of Pomona and San Bernardino, a distance of 18 and 28 miles respectively, at a line voltage of 10,000 volts, an achievement hitherto unheard of. These and other plants are all run by the splendid water-powers of the State and the great possibilities for further development are limited only by economic needs.

Much attention through a series of years has been given to a careful and systematic study of the streams of Cal-ifornia, to secure the data on which depend their development for power and irrigation purposes. Most of this work has been done by the United States Geological Survey as a part of its general investigation of the water resources of the whole country.

Lieutenant-General Miles, commander of the United States Army, interviewed at Buffalo, N. Y., on the army canteen question, said: "I don't believe the present law should be repealed until it has been given a fair trial. There has been a great deal of idle talk concerning the canteen. The army canteen, or exchange, or amusement room, as it is variously called, was at first simply a place where soldiers might congregate to play games and amuse themselves. The sale of liquor was not allowed. The last act of Congress places the institu-tion back on the old footing. I am not sure that Congress has made a great mistake in prohibiting the sale of liq-uor. Our large manufacturers don't find it necessary to provide places where their employees can congregate and The railroad companies don't. There is very little drinking among railroad men, and they seem to get along just as well.

What an absurdity a drinking annex would be to a railroad Y. M. C. A. reading room!

Vaccination as a Preventive of Black-Leg.

NEWSPAPER BULLETIN PURDUE UNIVERSITY EXPERIMENT STATION.

While black-leg is a disease that has been known for a long time and vac-cination for its prevention has been practiced for several years, this means is not generally known here. The disease was formerly of much more frequent occurrence than at the present time but there still remains centers of infection that cause the loss of many dollars' worth of stock each year.

The disease is infectious but not contagious; that is the germs live on the plants on which the animals feed or in the water they drink and thus gain entrance into the body, but they are not conveyed from one animal to another by merely coming close together.

The germs are usually found on the grasses growing upon low rich land The spore or seed of the germ is very hardy and may be dried in the mak-ing of hay and produce the trouble when it is fed in the winter. Most

cases occur in summer and fall.

The symptoms are sudden onset with fever, difficult breathing, stiffness, lameness, colicky pains, loss of appetite and great depression. Swellings occur upon the body, about the thighs, chest, neck, or shoulder, and these have a peculiar crackle when pressed upon by the finger. They are filled with gas. The course of the disease is very rapid, only lasting from a few hours to a few days. Young, well-kept cattle from 4 months to 2 years old are the favorite subjects, although older cattle may be attacked. Very few recover, and treat ment is useless in the majority of cases.

Every animal dying of the disease should be burned. On farms where cases occasionally

occur, it is advisable to vaccinate. The vaccine may be obtained from several reliable firms and its use has passed beyond all experimental stages so that it may be relied upon to greatly diminish the loss. It is easily applied.

R. A. CRAIG, Assistant State Veterinarian.

Honey for Kansas, Missouri, and Oklahoma.

Two cans, 120 pounds net, amber \$7.80, whitest (more from alfalfa bloom) \$9.00, comb honey in one pound sections, 10 to 13 cents. Also small cans, all sizes. See price list. Nothing but genuine 'bees' honey. Reference, KANSAS FARMER Co. Address, Arkan-sas Valley Apiaries, Oliver Foster, Pro-prietor, Las Animas, Col.

\$13.00 to Buffalo Pan-American and Return \$13.00.

via the Nickel Plate Road daily, with limit of 15 days; 20 day tickets at \$16.00 for the round trip; 5 day tickets at \$6.00 for the round trip, 0 Tuesdays, Thursdays, and Saturdays, the latter good only in coaches. Through service to New York and Boston, and lowest available rates. For particulars and Pan-American folder of buildings and grounds, write John Y. Calahan, General Agent, 111 Adams St., Chicago. (No. 37)

Un-American.

"She keeps a strictly American board-

ing house, doesn't she?"
"Yes, and that makes it seem all the more out of place that so many of her boarders should take French leave."-Philadelphia Evening Bulletin.

Two Girls.

"If ten men should ask you to marry

them, what would that be?" "What would it be?"

"A tender."

"And if one should ask you, what would that be?"

"I don't know; what?"
"A wonder."—Life.

When writing advertisers please mention Kansas Farmer.



BLANDEST SMILE. The Gold Médal PAN-AMERICAN

Exposition in spite of the "would-be competitors"

fiercest opposition, who imagined that everything was fixed to come their way, and who had a lawyer in their interests almost constantly at Buffalo; but, oh! what a disappointment when they found that they were not the

"Only Pebble on the Beach." Our "would-be competitors," the DeLaval Separator Co., rehearse at great length their view of how the U.S. Separator beat them at the Pan-American, but the fact remains just the same that the U.S. did beat them by its work in the Model Dairy.

Now, to draw attention away from the actual workings of the separators, these "would be competitors," begin to shout "fire" and talk much about sparks that caught in the roof of some boiler house, instead of giving the actual tests of the Separators.

These "would-be competitors" go back to the World's Fair, Chicago, and state "they received the gold and only medal awarded by the regular jury." Everybody who knows anything about that Fair knows that the DeLaval Company received no Gold Medal, and all they got was a Bronze Medal.

It is true they did have the jury fixed to their liking, and that jury turned everybody down but themselves, but when it was shown to the Fair officers that this jury was made up of DeLaval agents and partisans, they immediately appointed a new jury, and that jury awarded the Vermont Farm Machine Company twelve medals of highest merit on its different articles of manufacture; twelve times as many awards as our "would be competitors" the DeLaval Company got.

At Paris, 1900, the DeLaval Separator Co. had no exhibit or Separators. Their foster-father, the Aktiebolaget Separator of Stockholm, Sweden, did. have a big exhibit, but no prize was awarded them by the regular or class jury. When the class jury was examining the separators, our representative urged that the separators be tested to prove our claims of superior merits, and also presented a written request that such tests be made, but was informed by the jury that the DeLaval Co.'s foster-father, the Aktiebolaget Separator, objected to tests, claiming that it would take six months (three in winter and three in summer) to make reliable tests.

Every one knew this was only for a bluff to prevent tests, and the jury so looked upon it, and gave the Aktiebolaget Separator no prize, and the official list of prizes published and distributed at the Paris Exposition did did not contain any award to the Aktiebolaget Separator or the DeLaval

The Aktiebolaget Separator Co., of course, were dissatisfied, and appealed to the Grand or Superior Jury. They got the King of Sweden to make a personal appeal to the jury for them when he was on a visit to the Paris Exposition, and also the Swedish Minister to France, and the Swedish Commissioner General to the Exposition made personal appeals to the Grand or Superior Jury in behalf of the Aktiebolaget Separator and its child, the DeLaval Company, and made it a political matter, so that it is now reported that when the revised list of prizes, which is not yet published, is issued, it will contain notice of an award to the Aktiebolaget Separator Co.

The above statement can be proved as correct. The DeLaval Company and their foster-father had to get the King and the Minister and the Commissioner to use their political influence before they could get an award at Paris, and then only on an appeal to the Superior or Grand Jury.

We ask the dairy public how much that reflects on the merits of the DeLaval Separator, and who it is that does the "after pulling and hauling which unsuccessful exibitors always resort to ?"

The United States Separator has been awarded the Gold Medal or the highest prize at

Every International Exposition

where it has been exhibited since its manufacture.

We are always pleased to send illustrated circulars for the asking.

VERMONT FARM MACHINE CO., BELLOWS FALLS, VT.



Brain Markets.

Conducted by James Butler, secretary of the Farmers' Oc-operative Grain and Live Stock Association.

"The human race is divided into two classes,— those who go ahead and do something, and those who sit still and say, why wasn't it done the other way."—Oliver W. Holmes.

Grain Markets to 2 p. m., October 29.

Grain Markets to 2 p. m., October 29.

Wheat exports to-day were 460,370 bushels from both éast and west coasts. Northwest receipts, 890 cars or about double of those for same day last year. Kansas City receipts were light as usual. Markets closed steady, as follows:
Chicago.—No. 2, red wheat, 72½-72½ cents; No. 2, hard wheat, 70½-71 cents; No. 2, corn, 55½-56½ cents; No. 2, oats; No. 2, oats; No. 3, red wheat, 71 cents; No. 3, red wheat, 68-69½ cents; No. 2, hard wheat, 67½ cents; No. 3, hard wheat, 68½-67 cents; No. 4, hard wheat, 64-66½ cents; No. 2, corn, 59½ cents; No. 2, bass, 37½-38 cents.

Market Letter.

F. W. FRASIUS, OF THE FARMERS' CO-OPERATIVE GRAIN AND LIVE STOCK ASSOCIATION.

OPERATIVE GRAIN AND LIVE STOCK ASSOCIATION.

Markets for grain were firm all of last week, caused by sensational reports of drouth in South America and Australia. A cablegram to the Northwestern Miller of Minneapolis reads: "Argentine crop damaged by drouth in provinces of Santa Fee and Entre Rios and entirely destroyed in Cardova, with prospects of a loss of over 70 per cent on the entire acreage of Argentine."

Exports last week of wheat and flour were 4,952,000 bushels, with 4,933,000 bushels in the corresponding time of a year ago. Corn exports were 1,128,000 bushels last week. Exports of this cereal are running low on account of the high prices governing in this country.

Exports of wheat and flour in the seventeen weeks since July 1 amount to 101,000,000 bushels, compared with 60,344,000 bushels in the corresponding time a year ago, 69,541,000 bushels three years ago. From this it will be seen that foreigners are taking our wheat at a lively rate. But receipts in the Northwest are still running very high and consequently the visible supply of wheat is increasing very fast, there being 40,637,000 bushels at present, with an increase for last wek of about 1,250,000 bushels. The movement of wheat from first hands is still very large, especially so in the Northwest, being much larger than a year ago.

Carlot receipts of wheat in the principal market centers.

the Northwest, being interest angles ago.

Carlot receipts of wheat in the principal market centers.

Kansas Chi- St. Minne Du- To- cago. L. apolis. luth. tal.

Last week...... 468 762 385 3471 1491 6567

Previous week... 360 914 270 2713 1407 5864

Two weeks ago . 480 1004 205 4000 1381 7070

A year ago... 1115 1231 614 3018 674 6652

Two years ago. 867 974 371 3266 1586 7064

Three years ago 1763 1925 1196 3061 3802 11347

Two years ago. 867 974 371 2266 1886 7084
Three years ago 1768 1825 1196 3061 3802 11847

Demand from Southwestern millers is quite brisk for wheat and prices are now about 5 cents higher than they were the middle of July. We do not see much to endanger the price of wheat but believe it will work higher gradually.

Corn is about 20 cents higher than it was a year ago. This is chargeable to the drouth, and the shortage of corn will have to be made up to a large extent by other cereals. Many investors, notably Mr. Philips, the "corn king" of Chicago, predict much higher prices for corn. The 1,000,000,000 bushels shortage will have to be made up and we believe it will effect prices of wheat in the near future, and where wheat can be held for some time we think it will amply repay the holder.

The trade journals, among them the Cincinnati Price Curent and Modern Miner, speak of the favorable outlook for wheat now growing and only in a very few localities does the growing plant need rain.

Topeka, Kans., Oct. 29, 1901.

If you want to help us break up the grain trust in Kansas, send us a dollar and get your neighbor to assist us in

How many men have the nerve and energy to solicit for our propoganda fund? Every reader of this paper will assist if some one will take the lead and ask them to contribute.

Mr. Reader, are you not going to help us sustain the vantage ground we have gained in our contest with the grain trust in this State? If so, sit right down and write us a letter enclosing a dollar or more to the expense fund.

Jasper Swan, of Coffeyville, Kans., and G. W. Wilkins, of McDonald, contributed liberally to the fund for prosecuting the grain trust. Don't you feel a little derelict in your duty when you re-alize that you have done nothing to help your own cause, Mr. Reeder; are you not interested in this contest? If so, open your conscience, your heart, and your pocketbook and play your hand.

The officers of the Farmers' Cooperative Grain and Live Stock Asociation are assisting in the legal fight against the grain trust. The time and energy accessary to this work is freely contributed by the association and its officers. The directors have not, however, authorized the use of the association's money in employing lawyers. Interested farm-ers are invited to contribute one dollar each for these expenses.

When writing advertisers please mention Kansas Farmer.

Special Want Column.

"Wanted," "For Sale," "For Exchange," and small or special advertisements for short time will be in-serted in this column, without display, for 10 cents per line, of seven words or less, per week. Initials or a number counted as one word. Cash with the order. It will no. Try til.

It will pay. Try it! further notice, orders from our sub-SPECIAL.—Until further notice, orders from our sub-scribers will be received at 1 cent a word or 7 cents a line, cash with order. Stamps taken.

CATTLE.

FOR SALE—Twenty-six Hereford bulls, seven-eighths and better, from 6 to 10 months old. Also two ecorded bulls. S. Wertzberger, Volland, Kans.

FOR SALE—3 pure Cruickshank-Shorthorn bulls. H. W. McAfee, Topeka Kans.

BUY YOUR BULLS NOW! Pure-bred, non-record ed Hereford bulls, calves, and yearlings, suitable for very heavy service next year, at drouth prices. As fine as anybody's average registered stock. Write to-day, Also registered bulls. A. F. McCarty, Humboldt, Kans

FOR SALE—Five registered Shorthorn bull calves, 10 cows and heifers; on account settling estate. Catherine E. Anderson, Admix., 153 North Ninth Street, Salins, Kans.

FOR SALE—Five Scotch-topped Shorthorn bulls, from 6 to 16 months old; 2 are from Gallant Knight, and took first and second premiums at the Rice County Fair. J. P. Engol, Alden, Kans.

SHORTHORN CATTLE SALE—I will offer at public sale, 1½ miles south of Marysville, at 2° clock p. m., on Tuesday, October 18, 17 registered Shorthorns, 19 high grade Shorthorns, and 3 thoroughbred Jerseys. Lewis Scott, Marysville, Kans.

FOR SALE OR TRADE—Forty head of dairy cows with or without the dairy business; also 80 head of stock cattle. Address C., care of Kansas Farmer, Topeka, Kans.

HORSES AND MULES.

FOR SALE—At a bargain—young draft stallions. A. I. Hakes, Eskridge, Kans.

FOR SALE OR TRADE—A good, young jack, and a young draft stallion. Would trade for pasture land. Write me at Agenda, Kans. H. Harbaugh.

PROSPECT FARM—CLYDESDALE STALLIONS SHORTHORN CATTLE and POLAND CHINA HOGS. Write for prices of finest animals in Kansas. H. W. McAfee, Topeka, Kansas.

SHEEP.

COTSWOLD SHEEP—I have two registered, and 12 high-grade Cotawold rams, lambs, and yearlings for sale. Write me for prices and descriptions. John H. Rust, Altamont, Kans.

FOR SALE CHEAP—Two pure-bred Shropshire rams and 1 Cotswold ram, 1 Duroc-Jersey boar, 6 months old; will exchange him for 2 gilts 3 months old. This stuff is prize-winning stock, will sell at less than full value. H. H. Hague & Sons, Walton, Kans.

GRADE SHROPSHIRES and Merino ewes to put out on shares. Bucks and wethers for sale. W. roosters 50 cents. W. W. Cook, Russell, Kans.

FARMS AND RANCHES.

WANTED—Lease for term of years. Will pay cash rent on desirable farm of 80 to 160 acres. Northern Kansas prefered. G. P. Monroe, Whiting, Kans.

FOR SALE OR TRADE—For a good farm, a first class livery barn, all stocked in good shape; and a fine residence in Carbondale, Kans., on main line of Santa Fe R. R., doing a good business Address W. Q. Hyatt, Carbondale, Kans.

FREE A book of statistics, information, and 200 Winders Realty Co., Ottawa, Kans.

FOR SALE—200-acre farm 16 miles from Topeka, 3 miles from good town and railroad, 100 acres in cultivation, 40 acres stock pasture, 8 acres clover, fenced hog tight, 6 acres apple, 5 acres peach, 3 acres vineyard, nice shade trees. Balance meadow, 6-room house, 2 celiars, cistern, pump in kitchen, stone stable, cribs and granary, implement shed, stock shed, corrals, etc., 3 wells, hedge fences, nice, rolling upland, good soil, an excellent farm, cheap. Price \$32.50 per acre. R. A. Richards, sole agent, 111 West 6th St., Topeka, Kans.

THE OZARKS—Cheap homes for sale in the Ozarks, the land of the Big Red Apple. Address Geo. T. Meador, Cabool, Texas Co., Mo.

FOR SALE OR TRADE—160-acre improved farm, in central Kansas. A bargain. For full particulars, address Jno. Fox Jr. New Cambria Kans

SWINE.

FOR SALE—Some extra good pigs (both sexes), of Chief Tecumseh, Look Me Over, and Chief Perfection 2d strains. Wm. Maguire, Haven, Kans.

MISCELLANEOUS.

CHOICE ALFALFA SEED, price \$4.50 f. o. b. J. E. Good, Canada, Kansas.

AFFALFA SEED—None better than I have. Buy direct from a grower. Quantities to suit. Write for samples and prices. V. S. Jones, Syracuse, Kans.

SCOTCH COLLIES—I have 5 pups ready to ship; from registered stock. My breeding dogs are all rained. My pups give best of results as workers. From 44 to 45. A. P. Chacey, North Topeka, Kans.

WANTED—Guns; buy, trade on new ones. Remodel, or repair any part of any gun made. Strictly high grade work. The largest line of modern guns in the State always on hand. Athletic sporting goods. Foot, and base ball supplies. Practical ideas developed, and patent models manufactured; any material, any model. H. B. Howard, 505 Kansas Avenue, Topeka, Kans.

FIFTY THOUSAND apple and peach trees; whole sale price list, on application. The Seneca Nursery Seneca, Kans.

WANTED—Alfaifa, millet, cane seed. kaffir-corn, milo maize, and pop corn. If any to offer please correspond with us. Kansas Seed House. F. Barteldes & Co., Lawrence, Kans.

WOOL WANTED—We have just completed our New Woolen Mill in North Topeka and want at once 200,000 pounds of wool for which we will pay the market price. Write us if you have wool for sale. Western Woolen Mill Co., North Topeka, Kans.

FOR SALE OR TRADE—One large size (six roll)
Keystone corn husker and fodder shredder mounted
and complete; been used but one season. Can use good
work team or registered Shorthorn bull. E. F. Gregory, Garnett, Kans.

MISCELLANEOUS.

BALMOLINE—Nature's Wonderful Healing Salve. Man or Beast. Druggists, 25 and 50 cents. Trial size 4 cents from B. H. De Huy, Ph. D., Abilene, Kans.

ALFALFA SEED—Crop of 1901, pure and fresh. Write for prices. McBeth & Kinnison, Garden City, Kas

FOR SALE—Feed mills and scales. We have 2 No. 1 Blue Valley mills, one 600-pound platform scale, one family scale, and 15 Clover Leaf house scales, which we wish to close out cheap. Call on P. W. Griggs & Co., 206 West Sixth Street. Topeka, Kans.

PATENTS.

UNITED STATES PATENTS FOREIGN

F. M. COMSTOCK & CO. OFFICE 529 KANSAS AVE., TOPEKA, KANSAS

J. A. ROSEN, attorney and counselor in patent, trademark, and copyright causes. Patents procured and trademarks registered. Office, Rosen block, 418 Kansas Avenue, Topeka, Kans.

Notice of Final Settlement.

The State of Kansas. Shawnee County, ss.
In the Probate Court in and for said County.
In the matter of the estate of John S. Firey deceased.
Creditors and all other persons interested in the aforesaid estate are hereby notified that I shall apply to the Probate Court, in and for said County, sitting at the court house, in Topeks, county of Shawnee. State of Kansas, on the 3rd day of December, A. D. 1901, for a full and final settlement of said estate.

Administrator of the estate of John S. Firey, Deceased.
October 26, 1901, A. D.

Notice of Final Settlement.

The State of Kansas, Shawnee County, ss.
In the Probate Court in and for said County.
In the matter of the estate of William Firey, de-

Creditors and all other persons interested in the aforesaid estate are hereby notified that I shall apply to the Probate Court, in and for said county sitting at the court house, in Topeka, county of Shawnee, State of Kansas, on the 3rd day of December, A. D. 1901, for a full and final settlement of said estate.

J. B. MCAFEE,

Administrator of the estate of William Firey de eased. October 26, 1901 A. D.

The Stray List.

For Week Ending October 17.

Miami County-L. Flanagan, Clerk. SOW—Taken up by Z. Priestly, in Marysville tp., September 26, 1901, one black sow, about 1 year old, weighing 160 pounds, valued at \$11.

Cherokee County—S. W. Swinney, Clerk.
PONY—Taken up by Ash Soper, in Mineral tp., October 5, 1901, one bay horse (pony), slight split in one ear; valued at \$15.

Montgomery County-D. S. James, Clerk.

COW-Taken up by George Riggans, in Rutland tp., September 26, 1901, one red cow, 8 years old; valued at \$25. Week Ending October 31.

Doniphan County-Margaret Schletzbaum, Clerk.

For Week Ending October 24.

STEER—Taken up by James B. Roberts, in Wolf River tp., September 21, 1901, one red steer, with mot-tled or white face, 18 months old; valued at \$22.

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E. P. MILLER, Owner, Medicine Lodge, Kans, After December 1, 1901, address

41 West 26th Street, New York City, N. Y.



Steel Range at 1/4 agents' prices. Guaranteed for 5 years. Send for free catalogue (4 styles) also catalogue of Sewing Machines and Buggies and Harness in colors. 1000 things you want. Reference this paper. Address Hapgood Manufacturing Co., Bax. 400 Alten III.

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intends to establish an Office and distributing depot in each state, and desires Manager for each office. Salary \$125 per month and extra profits. Ap-plicants must furnish reference as to character and have \$800 to \$1,000 cash. Previous experience not nec-essary. For full particulars, address, PRESIDENT, Box 1151, Philadelphia, Pa.

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Kansas Farmer's Handy Guide

Contributed from various sources, including correspondents, scrap-books, and farm papers. Compiled and arranged by J. Clarence Norton, Moran, Kans.

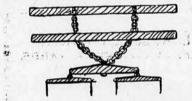
CLOD CRUSHERS.

A Good Clod Masher.—Take three 2 by 12 inch planks, say about 8 or 10 feet long, or as long as you may choose. Bore a hole in each end of one plank, 2 feet from the end and about 3 inches from the edge. Take second plank and from the edge. Take second plank and lay edge of it on edge opposite to holes in first plank so as to lap about 3 inches and nail firmly. Take third plank and lay on lower edge of second plank so as to rap about 3 inches and nail. Put a clevis in each hole of first plank and the order of a rape or chain to clevises. tie ends of a rope or chain to clevises. Put on double-tree to rope or chain and you are ready for work.

Cheap Pulverizer and Clod Crusher.-Take hemlock or oak boards 1 by 6 inches, and 6 feet long. Then take 2 pieces of 2 by 4 inch hemlock scantling, pieces of 2 by 4 inch hemlock scantling, about 5 feet long, and to these spike or nail the boards, lapping them 1 inch. Slant off the front ends of the two pieces of scantling, and nail a board 1 by 6 inches, and 6 feet long, on these ends to prevent dirt from shoving on top of the crusher when working. Bore a bole in the front end of each scantling. a hole in the front end of each scantling, a noie in the front end of each scantling, and put a clevis in each; attach with a chain to doubletree. The driver stands on the crusher while working, or a seat may be firmly attached to it. You can gather up your stones and put in the crusher, and then throw off at each end of the field.

Improved Clod Crusher.-Make in the usual way with 4 or 5 planks 6 feet long, with edges lapped over each oth-Then take your old worn-out cross cut saw, punch holes for screws and put it on the back plank, letting the edge with teeth on project about 2 inches beyond plank, to rest on ground; bend teeth down and you will find it will pul-verize the ground twice as fine as the ordinary crusher.

Corn Stubble and Clod Crusher.— Take 2 poles, 15 to 20 feet long, or whatever length you may wish, and 4 to 6



inches thick. Put poles 12 to 15 inches apart; fasten with short chains. Fasten to doubletrees with long chains, as shown in cut. Bore holes through poles to fasten chains with.

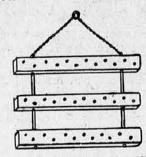
Plank or Clod Crusher.—I have found it to work admirably. It will crush the clods better than the old kind of crusher and will not clog. 'Take a plank 3 by 14 or 16 inches, 8 feet long. Bevel front edge of planks a little, narrowest side to be down. Across bottom, nail 10 strips of hardwood, 1 or 1½ by 2 inches, 8 inches apart, broad side down, at an angle of about 45°, slanting from front center towards each end. Crusher may be drawn with 2 stay chains. Driver standing on it assists in turning and holding it straight at work with his feet. If a seat is desired it will be best to put on a tongue. An old mower seat makes a good one.

Planker and Clod Crusher.-For simplicity, cheapness, and durability, one that will be of more service to the farmer than any home-made tool, I think the planker and clod crusher is at the head. Take 3 planks 10 incnes wide and 8 feet long; lap one edge upon the other 1½ inches, then take a 2 by 4 scantling, saw off the length the planker is wide, bolt scantling to top side of planker. Put a row of ½ inch teeth in each plank, about 2 inches through plank alternately in such a manner they will slant back a little, and close enough together so they will cut every 2 inches. This makes one of the best tools on a farm. It pulverizes the ground, levels and packs at the same time so the ground will hold dampness better, seed will come even, and you can cultivate to better advantage.

Planker and Clod Crusher for Listed Corn Ground.—Take 3 planks 2 by 12 inches and 8 feet long, place them weatherboard fashion, and spike 2 pieces 2 by 4 across them, 3 feet 8 inches apart. To the rear end of these pieces attach 2 logs 10 inches through and 3 feet long with small chains 2 feet long. The planker will level ridges, and the logs will crush all clods in furrow over corn. This practically crushes all clods. It is best to go over ground soon after listing.

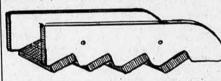
A Clod Crusher and Leveler.—Take 3

and 6 feet long. Bore two rows of holes for the teeth, 4 inches apart, so one row will cut half-way of the other. Use old steel rake teeth, cut 5 inches long, driven in 2½ inches, and slanting back 45° or more. The 3 stocks are joined to-



gether with 2 three-quarter rods, 4 feet long, with ring on one end and burr on the other. Bore through the edges of each stick a little slanting, so the front each stick a little stanting, so the front edge will turn up a little. It will run over lumps and prevent clogging. The joists are held apart by boring holes through sticks the proper length, slipped on the rods and burred up. Attach a chain the right length in ring on tach a chain the right length in ring on tach a chain the right length in ring on the rods, with ring in the middle of chain to hitch to whiffletree. This is an excellent tool when used on smooth land to go over the potatoes before they are up, or to make lumpy land smooth with little work. Put a weight on if necessary. I have used one three years and value it many times its cost.

Add to most any of the above cuts of clod crushers, two side runners 2 by 8 inches, 8 feet long, that when spiked



at the sides of the crushers, will prevent them from rearing up or plunging down, and go once crosswise of listed ground and it will be perfectly level. This is a good way to follow the lister for wheat, after it has "busted" the centers behind a potato plow.

CLOTHESLINES.

Lasting Clothes Line.—Take a piece of galvanized wire as big as you can draw taut. Set some good posts, and you have a line that will not sag or rust out. Clothes and line are always in place. It saves the time of putting up a line every Monday, and saves buying a new line every six or eight months. Will last fifty years.

Rotary Clothes Line.—Take a wheel from a cast off wagon, in place of each alternate spoke place arm made by ripping boards 1 by 5, 12 feet long, so that each will make 2 pieces 1½ at one end each will make z pieces 1½ at one end and 3½ at other. Shoulder wide end and place in hub, drive large wire nail inside, point band over each arm. Run No. 9 wire from nail through hole in arm 5 feet from hub and back to nail. Twist together perfectly tight. Draw the country of a property together the country of a property together. line around points of arms, fasten to a buck-saw tightener, which will make the line perfectly tight. Other lines may be placed inside this at proper dis-tance. Place this contrivance on end of large post set firmly in the ground and you have a line that economizes space, does not sag, saves wading in snow, mud, wet grass; moving clothes basket, etc.

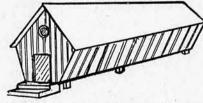
CORN.

Handy Corn Crib.—The doors at the top are to throw the corn in. They are so placed that the crib can be filled full.



The box below is to take the corn out As removed, more slides down and takes its place.

A Good Corn Crib.—The accompany ing illustration shows a neat crib for corn, one that can be constructed cheaply and any size to meet the needs of the farmer. A good size or one that is



commonly built is 30 feet long by 7 feet high. The timber should be well seastraight, hard-wood joists, 4 by 6 inches, soned, and dressed and planed both in

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and outside. The roof is first boarded, and outside. The roof is first boarded, then shingled. A cheaper covering would be felt roofing paper, tarred; but a shingle roof looks better, and in the long run is as cheap as the paper. The illustration gives a correct idea of the building, so that a detailed description is unnecessary. Obtain your lumber and tools, and if you possess ordinary ability at carpenter work you will find ability at carpenter work, you will find no trouble in erecting the crib. The expense will be moderate, the size, of course, regulating the same.

Handy Corn Crib.—Build it on sloping ground, so that one side of it will be about 6 feet from the ground on posts. Put tin around bottom of posts to keep vermin out. Have a road on each side. Throw the corn in through dears from the upper road. doors from the upper road. The doors on lower side are for taking corn out of crib. Hinge them to crib at the bottom. When taking corn out of crib, open a door and let edge of it rest on top of wagon bed, and the corn will roll from crib into wagon.

Moving Fodder from Field to Feed-Lot.—Have a low sled; break the stalks that hold the shock; turn it over on sled (two or more if sled is long enough); drive to feed-lot, turn the shock back and straighten up. Will keep until used just as well as in field. If twine breaks, draw a rope around them while hauling.

Plant Fodder-Corn.-Fodder corn is a cheap and valuable food to retain the milk product during July and August when the pastures dry up and cattle lose in flesh and milk. It may be cut up and mixed with feed, fed whole or used as ensilage. Every farmer keeping cattle for dairy purposes should raise a large field of it each year for summer and winter use. Sow upon good land in drills about 3 feet apart, and keep well cultivated. If seed.corn and keep well cultivated. If seed-corn especially adapted for that purpose be used, a much larger yield per acre can be had than by using field corn.

Save the Corn Fodder.—A noted Western man riding across the country and noticing thousands of acres of corn stalks standing in the field, from which the ears had been jerked, said: "The farmer is conducting the only business in the world that allowed a man to lose 45 per cent of his capital stock and at the same time live." Out of our great corn crop of nearly 2,000,000,000 bushels annually, only a very small part of the fodder is turned to much account. At the very lowest estimate, the stalks yielding one bushel of corn are on an average worth 10 cents for feed, even he great corn total of \$200,000,000 the South generally little value is attached to corn stalks as fodder. In the West many farmers let their cattle roam in the fields and pick off some leaves, eat a little of the stalk, and trample the rest down. Nearly the whole of a corn stalk except a very little tle of the thin, hard outside coating, affords nutritious fodder if it is cut at the proper time and well cured. It needs to be cut when not so green as to mould in the shocks but not so ripe as to lose all its succulence and become woody. Experience and observation will generally indicate to everyone the proper time for cutting it.

Stacking Corn Fodder.—Set a pole in the ground the height you wish to build your stack. Begin setting the bundles around the pole in rotation un-til the bottom is as large as wanted. Now stretch a rope around near the top and draw tight and tie; then put a bun-

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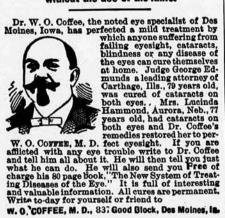
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dle on top and get on this bundle and go to building stack. The butts of the first course should project over the bot-tom about a foot, and each course gradually drawn in until the top of the pole is reached and the last few bundles se-curely fastened to the pole. Then untie the rope and take away and you have a weatherproof stack. Begin taking out the and cork tips and cor from bottom of stack.

Threshing Corn Fodder.—Haul the shock corn to the barn and run it through the threshing machine. This cuts and slits the stalks all fine, shells and separates the corn, and breaks up the cobs. This process leaves the fod-der in fine shape for feeding stock, as there is no waste, and if managed so as to run it from the machine into the barn is certainly a great saving.

To Draw in Corn Fodder.—Take two green poles 16 to 18 feet long, bore 2-inch holes for cross braces to hold poles desired distance apart, bore several 2inch holes in small ends of poles for upright pins. Attach large ends of poles to bolster of front part of wagon; let small ends drag on ground. Have a board with cleats to walk upon. One man can load. drive to barn, draw out upright pins, start up team and the fodder will slip off behind, thus saving handling

How to Cut and Set Up Shocks of Corn.—Take a pole of light wood, about 12 or 14 feet long, bore two holes in large end for legs—one fastened tight, the other loose. About 6 feet from this end, mortise a hole through side of pole, to admit a cross-piece 4 feet long. Set your horse up, cut two rows from each side, and set in the four corners made by cross-piece, and tie, then cut the rest, two rows at a time, always cutting towards shock, and set all around from both sides. When done take a halfinch rope, 10 feet long, with iron ring on one end, sling around shock and draw as tight as possible, then tie with binder twine of the proper length, with slip on end. Carry the string on end of pole in front of legs, pull out your cross-piece and the loose leg, take off your rope, shoulder your pole and go ahead to the next shock.

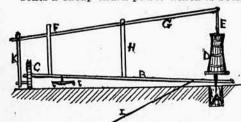
MISCELLANY.

Chow-Chow, or Spanish Pickles.-One Chow-Chow, or Spanish Pickles.—One gallon chopped cabbage, ½ gallon green tomatoes, 1 quart chopped onions, 1 quart vinegar, 2 spoons salt, 4 spoons ginger, 4 spoons cloves, 4 spoons cinnamon, 2 green peppers, add vinegar the last. Mix well, cook twenty minutes. When packed in jars, use weights to keep pickles under brine.

Preparing for Christmas Dinner.—If you intend having a Christmas dinner.

you intend having a Christmas dinner, you will save yourself a good deal of trouble by making your mincemeat and fruit cake two or three weeks before. Rub your flour, lard and salt together for pie crust, and put away in a stone crock; then when your pies are to be made, all you have to do is to add the water. Prepare your turkey the day before; also cold slaw. Peel the vege-tables and place in cold water.

Churn Power .- The illustration represents a cheap churn power which is both



simple and practical. A is a log, squared and set in the ground far enough to be solid. B is the sweep-

4-inch scantling, 16 feet long, with a 2inch hole in one end and an axle on the other, and holes in the center for the standard, according to the length of the dash. C is the drive-wheel, 18 inches dash. C is the drive-wheel, 18 inches in diameter, 3 inches thick. D is the churn, which stands still on a small one-legged table, with the leg running through the sweep, B, and into the stationary block, A. This arrangement gives the dasher, E, two motions, and causes the butter to "come" in shorter time. F, beam guide; G, beam; H, standard; I, hitching stick; J, whiffletree; K, pitman. It is very easy to operate. I like it better than any other power for churning.

Removing Cinders from Eye.-I will send you an excellent way of removing anything that gets into the eye and renders it painful. Take a hair from the tail of a horse; twist with the fingers and make a loop. Take this in the right hand, and with the left hand raise the lid of the patient's eye and insert, if beneath the lid. Push the loop in the direction of the offending matter and bring it out. It is painless, does not injure the eye, and is a most excellent method.

Sweet Cider the Year Around.-As soon as cider is brought from the press, let stand until settled, then put it in a clean vessel to heat, skimming off all scum that rises. When no more scum rises, then put the cider in jugs or bot-

A Model Coal House.—Frame your building so that the floor will have one-fourth pitch, low side to front, with a fourth pitch, low side to front, with a box attached to outside to catch the coal, box to be large enough to admit a shovel. The outside box should have a lid on to keep the coal dry.

Guarding Conductor Pipes Against Freezing.—In laying pipes in the ground to convey water from well to barn for stock always lay them through small

stock, always lay them through small tiling, (no smaller than 3 inches; less will clog); have tiling run in other, connecting with underground ditch. Then if you ever have the pipes freeze you can thaw them out with hot water.

Some Sugar Statistics.

EDITOR KANSAS FARMER: -As a good deal has recently appeared in print regarding the consumption of sugar in this country, the various sources from which it is obtained, the amount of duty paid thereon, etc., the following facts and figures will, we believe, be of in-terest to your readers: "The total consumption of sugar in

the United States last year was 2,219,847 tons, and based on the average increase of 6.34 per cent during the past nineteen years, the consumption this year should be 2,360,585 tons. Of this quan-tity 1,000,000 tons in round figures will come from American sources, say Louisiana being able to produce 350,000 tons, United States beet factories 150, 000, Hawaii, 350,000, and Porto Rico 150,000, all being free of duty, leaving 1,360,585 tons to come from other sources and on which duty is paid. The average duty assessed is \$36 per ton, or a total of \$48,981,060. The price of all the sugar consumed, however, being enhanced to the extent of the duty of \$36 per ton, or a total of \$84,981,060, it is evident that \$36,000,000 additional is paid by the people in order to provide the Government with \$49,000,000 for revenue, of which the Government is not now in need. If the duty is taken off Cuba sugar, the benefit of \$85,000,000 goes to the people. "On October 8th, the quotation for

Cuba Centrifugal Sugar 96° test, free on board Cuba was 1.96 cents per pound, on board Cuba was 1.96 cents per pound, duty on same amounts to 1.685 cents—equivalent to 86 per cent advalorem."
Yours truly,
WILLETT & GRAY (Sugar Statisticians)
Publishers of the "Weekly Statistical Sugar Trade Journal."

\$100 Reward, \$100.

\$100 Reward, \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages, and that is Catarrh. Hall's Catarrh Cure is the only positive cure known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer One Hundred Dollars for any case that it fails to cure. Send for list of testimonials. Address, F. J. CHENEY & CO., Toledo, O. Sold by Druggists, 75c.

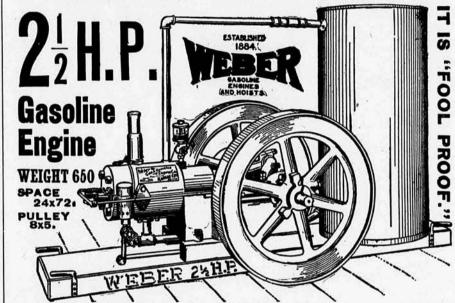
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Of steel construction, of correct principle, has great capacity, is light draft, two men can feed 150 bushels of corn through large size machine in one hour. Husks the corn well and shreds the fodder into

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A'Sure Preventive of Blackleg

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All you have to do is to put the Vaccine in your syringe, add boiled water according to directions, and inject into your cattle. It will positively PROTECT your cattle from the dread disease, Blackleg, the same as vaccination prevents Smallpox in the human family. Specify Parke, Davis & Co.'s Blackleg Vaccine Improved, and get the kind that is sure to be reliable. EVERY LOT IS TESTED ON CATTLE BEFORE IT LEAVES OUR LABORATORIES. Write for Literature and Full Information, Free on Request. FOR SALE BY ALL DRUGGISTS.

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